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Official Year Book

OF THE

Union of South Africa

AND OF

Basutoland, Bechuanaland Protectorate, and Swaziland.

Statistics mainly for the Period

1910-1925

No. 8.

J. E. HOLLOWAY,
Director of Census and Statistics.

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[S.P. 47.]

UNION OF SOUTH AFRICA

UNION OFFICE OF CENSUS AND STATISTICS

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OFFICIAL YEAR BOOK

OF THE UNION

AND OF

Basutoland, Bechuanaland Protectorate and Swaziland

No. 8—1925

COVERING THE PERIOD

1910–1925

Published under Authority of the Minister of the Interior

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PREFACE.

THE arrangement of this *Year Book* differs in some details from that of No. 7. To enable details more subject to change to be incorporated up to as late a date as possible, the information on Population and Vital Statistics has been transferred to Chapters XXIV and XXV, while certain other items have been culled from various chapters and incorporated in Chapter XXVIII. While this is, perhaps, a less logical arrangement than that followed before, it is certainly more useful. On the other hand, the short chapter on the Electorate, which appeared as Chapter XII in *Year Book* No. 7, has been incorporated in the chapter on Constitution and Government (Chapter II), where it more properly belongs.

By Act No. 8 of 1925 the Parliament of the Union recognized Afrikaans (in conjuction with Nederlands) as one of the official languages of the Union. Arrangements have accordingly been made to translate the whole of the *Year Book*, which formerly appeared in Nederlands, into Afrikaans. The translation of eleven hundred pages of matter which includes a great deal of widely divergent technical information, in a relatively short time, is a work of no small labour. The credit for the completion of this task is shared by Mr. A. C. Floor, translator of this office, and Professor Jan. F. E. Celliers, the well-known South African poet. It is hoped that the availability of the book in the form of Dutch which is universally spoken in South Africa will lead to a wider circulation in rural areas.

Further to signalize the passage of this Act, which is one of not inconsiderable national importance, there appears in this issue an article by Professor J. J. Smith on the "Evolution and Recognition of the Afrikaans Language." Professor Smith is Professor of Afrikaans in the University of Stellenbosch and editor of *Die Afrikaanse Woordeboek*, now in preparation. He is excellently qualified to deal authoritatively with this subject, and his article gives, in short compass, an account of an important development about which a great deal of ignorance still prevails, especially among English-speaking South Africans. The article appears on page 14 *et seq.*

I have great pleasure in placing on record my appreciation of the assistance rendered by Government Departments, private organizations, and individuals in keeping the *Year Book* up to date. I am particularly grateful to those who have drawn my attention to inaccuracies and omissions in regard to matters on which they can speak with authority.

Considerations of space make it necessary in each *Year Book* to leave out special articles which have appeared in previous editions. To enable these to be traced more easily they have been included in the index to this volume.

J. E. HOLLOWAY,
Director of Census and Statistics.

UNION OFFICE OF CENSUS AND STATISTICS,
PRETORIA.

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CORRIGENDA.

Page 353, paragraph 10 (ii) (*b*), fourth line, for "mortgager" read "mortgagor."

Page 365, Valuation of Immovable Property, etc., Total Valuation, Maclear; for "937,643" read "937,463";
Total, for "10,241,245" read "10,241,065."

Page 433, paragraph 5, eighteenth line, for "transplated" read "transplanted."

Page 526, Coal—Union Imports, etc., Railway, 1923, for "2,147,042" read "2,644,544"; 1924, for "2,518,854" read "2,780,944."

STATISTICAL SUMMARY OF UNION PROGRESS, 1891 TO 1924.

NOTE.—The table below is intended to provide a ready synopsis of South African progress in various directions during the period stated, and it has therefore been deemed advisable to exclude therefrom all but the most essential explanations of the figures given. Fuller particulars regarding the different items will be obtained on reference to the relative sections of this *Year Book*.

Heading.	1891 (Census Year).	1896.	1904* (Census Year).	1906.	1911 (Census Year).	1918 (Census Year).	1921 (Census Year).	1924.
Population (European)— (In thousands)								
Cape	377	445	580	581	582	619	651	680
Natal	47	62	97	97	98	122	137	151
Transvaal	119	176	297	335	421	499	543	584
Orange Free State	78	101	143	153	175	182	188	196
TOTAL	621	784	1,117	1,166	1,276	1,422	1,520	1,611
Population (Non-European)— (In thousands)								
Cape	1,365	1,528	1,830	1,877	1,982	2,158	2,132	2,210
Natal	685	796	1,012	1,038	1,096	1,248	1,293	1,360
Transvaal	599	623	973	1,064	1,266	1,487	1,544	1,642
Orange Free State	130	170	244	278	353	422	440	472
TOTAL	2,779	3,117	4,059	4,257	4,697	5,315	5,409	5,683
Population (All Races)— (In thousands)								
UNION	3,400	3,901	5,176	5,423	5,973	6,737	6,929	7,294
Education—								
Schools	2,083	3,381	3,976	4,824	6,275	7,724	8,323	7,890
Teachers	—	4,466	8,100	8,896	11,695	18,301	20,632	21,005
Scholars	123	147	230	256	325	503	569	593
Agricultural Production—								
Maize ....1,000 ton	—	—	453	—	863	1,264	1,335	1,124
Kaffir corn .. „	—	—	137	—	155	180	155	123
Wheat .... „	—	—	71	—	181	304	228	179
Oats .... „	—	—	65	—	155	172	96	106
Barley .... „	—	—	24	—	31	49	26	25
Potatoes .... „	—	—	82	—	92	117	112	106
Tobacco .... „	—	—	6	—	7	7	8	6
Cotton (seed) 1,000 lb.	—	—	—	18[6]	35[6]	797	3,576	10,003
Tea (green leaf) .. ton	141	392	1,203	1,254	3,361	3,257	1,851	1,758
Wine ....1,000 gall.	6,013	5,687	5,687	—	7,501	11,731	16,945	7,500
Sugar ....1,000 ton	13	6	22	47	82	105	144	203
Butter ....ton	—	—	—	—	5,675	10,047	9,482	4,793
Cheese .... „	—	—	—	—	273	3,011	2,309	222
Bacon and ham .. „	—	—	—	—	—	3,543	3,960	991
Live Stock—								
Horses 1,000	—	—	420	—	719	781	920	848
Mules .... „	—	—	135	—	94	85	117	125
Asses .... „	—	—	142	—	337	554	722	722
Cattle .... „	—	—	3,500	—	5,797	6,852	8,557	9,606
Sheep .... „	—	—	16,323	—	30,657	37,787	31,730	32,003
Goats .... „	—	—	9,771	—	11,763	10,379	7,837	8,064
Pigs .... „	—	—	679	—	1,082	1,043	915	778
Ostriches .... „	—	—	361	—	747	314	262	207
Mineral Production—								
Transvaal gold mines—								
Fine ounce ...1,000	688	2,026	3,771	5,793	8,249	8,418	8,129	9,575
Value £1,000	2,924	8,604	16,018	24,606	35,041	35,759	43,082	44,739
Diamonds—								
Metric carats. 1,000	2,957[1]	3,298[1]	3,781	4,246	5,022	2,605	828	2,440
Value £1,000	3,557[1]	4,034[1]	7,209	9,597	8,747	7,115	3,103	8,033
Coal ....1,000 ton	126[2]	1,785[4]	3,673	4,802	7,595	9,877	11,397	12,492
Gross factory output £1,000	—	—	19,530	—	17,249	60,123	98,308	79,789
Total imports[5] ...£1,000	12,264	23,373	32,476	31,076	36,925	49,487	57,800	65,816
Total exports[5] ...£1,000	12,300	18,130	29,744	41,706	57,024	70,633	74,354	84,257

[1] Cape only.
[2] Cape and Natal only.
[4] Not including Orange Free State.
[5] Excluding specie.
[6] Export figures.

* Owing to the Anglo-Boer war, the year 1901 has not been taken; 1904 may be considered the first normal year after that event.

STATISTICAL SUMMARY OF UNION PROGRESS, 1891 TO 1924—*continued.*

Heading.	1891 (Census Year).	1896.	1904* (Census Year).	1906.	1911 (Census Year).	1918 (Census Year).	1921 (Census Year).	1924.
Exports—								
Wool—								
In grease.....ton	42,189	42,654	35,337	42,467	63,447	50,196	109,447	83,021
Scoured..... „	7,006[3]	5,452[3]	1,577[3]	1,791	2,642	7,621	5,764	4,277
†Washed..... „	2,218[3]	1,310[3]	432[3]	125	15	—	1	—
Mohair..... „	5,240	5,258	7,374	7,863	10,533	9,823	8,564	6,833
Ostrich feathers 1,000lb.	198	322	470	548	827	109	297	384
Skins.....1,000	5,530	5,008	4,874	—	8,102	7,560	6,032	46,860
Hides.....1,000	463	472	1,356	—	521	364	388	31,440
Maize.....ton	3,408	3,635	8,102	6,954	103,277	254,748	388,623	71,948
Coal, cargo..... „	—	—	541,439	621,627	82,536	1,208,386	1,795,093	1,921,977
Coal, bunker..... „	—	—	—	—	1,426,586	1,276,333	1,636,445	1,816,021
Vessels entered—								
Number.....	860	1,297	—	1,395	1,805	1,036	1,217	1,293
1,000 tons.....	1,195	2,376	—	4,824	5,417	2,989	4,199	4,980
Vessels cleared—								
Number.....	841	1,245	—	1,376	1,803	1,004	1,204	1,240
1,000 tons.....	1,126	2,202	—	4,832	5,439	2,987	4,178	4,738
Open mileage of Government railways.....	2,318	3,325	4,942	6,056	7,548	9,552	9,617	10,111
Posts—								
Letters and post cards 1,000	—	42,411	111,298	104,181	143,025	—	161,977	173,610
Newspapers, samples, etc.....1,000	—	—	28,406	33,661	68,881[7]	—	77,956	108,034
Revenue.....£1,000	—	—	1,344	1,294	1,472[7]	1,974	2,785	3,179
Expenditure...£1,000	—	—	1,480	1,371	1,491[7]	1,821	3,344	2,735
Finance—								
Total revenue, excluding railways[8] £1,000	4,714	9,740	11,547	11,591	17,228	21,911	28,884	25,336
Total expenditure, excluding railways[8] £1,000	5,753	10,677	13,799	14,047	16,547	21,322	30,091	20,098
Public debt.....£1,000	—	—	90,410	97,999	114,237	160,437	178,608	208,233
Post Office Savings Bank—								
Number of depositors 1,000	32	63	161	174	225	289	307	304
Total deposits.£1,000	1,135	2,089	4,606	4,725	6,128	7,217	7,025	6,255
Banks—								
Note issue—								
Reserve Bank—								
(*a*) In other Banks £1,000	—	—	—	—	—	—	—	2,991
(*b*) In circulation £1,000	—	—	—	—	—	—	—	8,676
Other Banks.£1,000	939	2,047	2,128	2,075	2,379	6,451	9,183	1,060‡
Deposits.....£1,000	12,095	26,996	43,095	41,053	44,392	77,593	90,998	76,863
Advances—								
Reserve Bank£1,000	—	—	—	—	—	—	2,200	6,628
Other Banks £1,000	9,820	18,619	35,701	35,182	41,146	62,508	74,914	52,730
Coin and bullion reserves—								
Reserve Bank£1,000	—	—	—	—	—	—	4,746	10,826
Other Banks £1,000	4,473	9,280	9,348	8,110	7,851	9,337	9,010	2,546

[3] Through Cape Ports only.

[7] Year 1912. [8] For year ended 31st March of following year.

* Owing to the Anglo-Boer war, the year 1901 has not been taken; 1904 may be considered the first normal year after that event.

† Included in "scoured."

‡ Liability to the extent of £345,789 assumed by S.A. Reserve Bank.

DISTRICT STATISTICAL SUMMARY.

Districts.	Area in Square Miles.	Recorded Rainfall, 1925.	Deviation from Normal Annual Rainfall.	Population Census, 1921.		* European Population Census, 1926, Preliminary Figures.	Taxable Income of Individuals, 1924–25.	Revenue Collections, 1924–25.
				European.	Non-European.			
CAPE OF GOOD HOPE.								
		In.					£	£
Aberdeen.....	2,661	8·07	− 3·88	3,694	3,915	3,611	43,902	7,210
Adelaide.....	610	20·82	+ 1·57	2,064	6,759	1,921	87,420	10,582
Albany.....	1,645	31·90	+ 3·69	9,783	20,622	10,243	393,544	45,717
Albert.....	1,958	28·61	+10·00	5,985	9,658	6,236	77,165	13,066
Alexandria....	947	24·68	− 1·61§	2,735	10,471	2,783	53,463	4,264
Aliwal North.	1,330	34·08	+13·48	6,386	11,258	6,877	123,251	17,156
Barkly East..	1,564	35·01	+11·09	3,532	6,105	3,666	143,399	13,561
Barkly West..	4,024	21·14	+ 4·67	8,165	27,977	7,560	70,370	16,612
Bathurst.....	573	22·39	− 4·44	2,510	10,994	2,619	53,040	5,763
Beaufort West	6,374	10·18	+ 0·49	6,011	8,153	6,254	138,039	15,668
Bedford.....	1,000	28·06	+ 0·21	2,013	7,641	1,974	111,934	9,784
Bredasdorp...	1,577	16·95	− 3·27	5,854	4,705	6,377	126,250	8,655
Britstown.....	2,824	18·91	+ 7·44	2,226	2,952	2,333	20,833	7,994
Caledon.....	1,768	25·69	+ 4·37	11,062	10,457	12,472	132,910	18,420
Calvinia.....	13,894	14·20	+ 5·74	8,068	9,347	8,335	51,937	10,466
Cape.....	364	24·42	− 0·86	81,983	71,062	91,545	1,606,637	1,893,514
Carnarvon....	6,286	13·59	+ 5·50§	3,626	4,702	3,707	44,865	8,973
Cathcart.....	995	28·31	+ 2·36	2,277	11,989	2,184	147,528	21,587
Ceres.....	3,871	44·63	+ 3·11	3,654	4,687	3,798	46,057	8,226
Clanwilliam...	2,899	12·96	+ 4·13	5,847	6,308	5,811	21,539	5,564
Colesberg.....	2,394	27·34	+11·62	3,716	7,783	3,839	69,729	7,102
Cradock.....	2,255	16·15	+ 1·87	5,957	12,422	6,253	139,750	17,437
De Aar.....	1,168	16·98	+ 4·23	2,990	4,472	3,264	63,494	4,701
East London.	682	31·37	− 1·42	24,091	37,342	27,721	1,193,263	181,368
Elliot.....	766	32·78	− 1·00	3,711	5,398	3,432	46,431	6,234
Fort Beaufort.	515	20·25	− 0·99	1,733	10,986	1,848	49,374	7,730
Fraserburg....	4,790	10·00	+ 3·18	2,785	2,319	2,857	26,904	3,923
George.....	979	42·88	+ 8·66	9,549	8,828	11,906	89,587	10,625
Glen Grey....	907	†	†	715	42,183	674	13,422	11,337
Gordonia.....	18,499	17·23	+ 4·45	4,802	8,790	5,765	63,472	9,674
Graaff-Reinet.	2,576	16·10	+ 2·20	7,402	12,558	7,563	261,948	38,367
Hanover.....	1,731	16·23	+ 1·63	1,557	3,049	1,637	32,646	6,223
Hay.....	6,526	17·41	+ 5·46	4,499	8,814	4,443	30,739	8,154
Herbert.....	2,763	19·23	+ 5·66	4,218	9,910	4,521	29,241	7,792
Herschel.....	684	35·76	+ 8·19§	218	37,866	209	14,545	8,567
Hopetown....	3,214	‡	‡	2,692	3,235	5,115	50,689	9,582
Humansdorp..	1,950	28·81	+ 1·71	8,076	12,816	9,133	51,040	10,809
Jansenville....	1,768	12·22	+ 1·46	4,929	6,454	4,509	46,855	6,853
Kenhardt.....	15,955	7·38	+ 1·60	8,632	7,319	8,186	37,041	11,316
Kimberley....	1,764	18·41	+ 2·55	21,607	30,623	20,308	1,067,190	771,664
Kingwilliams-town.....	1,314	20·54	− 0·96	10,812	93,778	14,242	343,690	55,174
Knysna.....	810	30·66	+ 1·94	5,554	6,410	6,398	45,261	15,175
Komgha.....	546	29·69	+ 0·80	1,576	13,618	1,708	37,973	9,600
Kuruman.....	11,125	‡	‡	4,713	16,698	5,563	39,998	12,005
Ladismith.....	1,393	10·02	− 3·98	5,625	4,465	5,493	14,048	4,831
Laingsburg...	3,483	9·77	+ 5·20	3,874	2,605	3,577	30,329	2,684
Maclear.....	992	30·03	− 3·27	2,512	5,671	2,831	15,462	6,286
Mafeking.....	4,265	23·15	+ 0·49	4,478	30,271	4,611	72,758	13,433
Malmesbury..	2,325	19·50	+ 1·49	14,807	20,423	15,670	201,053	9,333
Maraisburg...	902	22·80	+ 8·78	1,579	3,005	1,721	22,169	2,657
Middelburg...	2,193	17·58	+ 4·16	4,558	9,311	4,687	109,686	20,125
Molteno.....	714	31·31	+10·34	2,635	5,706	2,678	52,507	5,209
Montagu.....	906	8·13	− 4·77	3,904	3,199	3,663	38,315	11,166
Mossel Bay...	707	18·42	+ 1·78	6,653	6,508	7,048	103,547	10,360
Murraysburg..	2,055	‡	‡	1,484	8,165	1,641	28,203	4,940
Namaqualand.	17,556	12·87	+ 5·97	6,134	15,333	6,418	35,961	8,139
Oudtshoorn...	1,733	11·61§	+ 1·98§	17,001	18,301	16,857	191,113	54,577
Paarl.....	618	36·04	+ 2·43	13,575	21,698	14,629	265,709	49,884
Pearston.....	1,045	14·65	+ 1·14	1,620	3,240	1,554	38,657	3,393
Peddie.....	657	23·66	+ 0·82	1,415	20,967	1,444	16,306	5,862
Philipstown...	2,158	22·31	+ 8·85	2,508	3,413	2,489	41,557	5,233

* Quinquennial census taken on the 4th May, 1926.
‡ No record.
† No station.
§ Records incomplete.

DISTRICT STATISTICAL SUMMARY—*continued.*

Districts.	Area in Square Miles.	Recorded Rainfall, 1925.	Deviation from Normal Annual Rainfall.	Population Census, 1921.		*European Population Census, 1926, Preliminary Figures.	Taxable Income of Individuals, 1924–25.	Revenue Collections, 1924–25.
				European.	Non-European.			
CAPE OF GOOD HOPE (*continued*).								
		In.					£	£
Piquetberg....	1,760	21·45	+ 0·62	11,356	8,258	12,088	75,064	8,791
Port Elizabeth	184	20·40	− 1·90	27,236	29,247	34,718	1,944.927	317,558
Prieska.....	5,643	15·69	+ 6·06	3,430	4,879	4,833	34,092	6,893
Prince Albert.	3,148	7·66	− 0·42	3,526	3,373	3,927	41,596	6,581
Queenstown...	1,370	24·55	+ 3·17	7,167	27,286	7,997	343,691	36,855
Richmond....	2,827	16·06	+ 2·79	1,704	3,785	1,856	42,483	5,126
Riversdale....	1,712	12·28	− 4·90	9,280	6,014	9,111	44,716	7,783
Robertson....	620	10·63	− 1·93	5,851	5,582	5,886	51,269	17,004
Simonstown...	101	†	†	8,716	5,920	8,899	115,242	7,762
Somerset East	2,102	22·77	− 2·98	5,422	11,909	5,720	195,311	13,703
Stellenbosch..	318	30·31	+ 1·74	11,434	17,612	13,188	248,368	56,466
Sterkstroom..	646	23·43	+ 3·60	2,145	4,844	1,966	50,336	5,404
Steynsburg...	1,113	20·70	+ 5·69	2,421	3,966	2,396	67,049	6,797
Steytlerville...	1,349	8·45	− 0·93	2,653	3,369	2,792	31,928	5,267
Stockenstrom.	314	21·19	− 0·71	1,772	8,979	1,931	16,519	4,355
Stutterheim...	629	32·78	+ 2·28	2,461	12,776	2,562	79,451	14,480
Sutherland....	3,426	15·48	+ 5·97	2,472	1,981	2,356	18,913	3,121
Swellendam...	2,145	25·85	− 5·66	9,338	7,895	9,449	55,194	13,301
Tarka.....	1,217	25·71	+ 7·43	2,161	7,257	1,974	75,301	8,738
Taung.....	1,442	22·11	+ 4·93	1,197	20,822	1,119	12,850	3,560
Tulbagh.....	373	20·50	+ 1·63	2,647	5,339	2,702	31,697	9,584
Uitenhage....	2,345	19·56	+ 1·69	14,177	21,827	15,157	272,301	21,647
Uniondale....	1,690	12·68	− 0·58	6,093	6,217	5,913	27,475	4,507
Van Rhynsdorp	5,026	6·31	+ 0·63	4,355	4,045	6,386	21,188	3,982
Victoria East.	384	23·62	+ 1·04	1,321	13,762	1,236	37,264	4,468
Victoria West.	4,254	11·00	+ 0·58	3,377	5,046	3,533	93,190	10,410
Vryburg.....	16,193	23·25	+ 4·01	5,614	22,597	5,820	50,913	12,731
Williston.....	5,160	7·31	+ 2·12	‡‡	‡‡	2,337	14,770	3,243
Willowmore...	2,813	9·61	− 0·09	4,178	4,694	4,048	49,796	4,606
Wodehouse...	1,469	26·61	+ 3·35	6,503	12.091	7,036	96,856	15,789
Worcester....	1,667	12·63	+ 0·25	8,837	13,600	10,053	240,340	45,002
Wynberg.....	198	40·65	− 4·61	36,289	45,264	42,494	††	3,206
TOTAL—CAPE OF GOOD HOPE (excluding the Transkeian Territories)..	260,185	—	—	635,651	1,183,077	686,777	19,151,594	4,309,068
The Transkeian Territories—								
E. Griqualand.								
Matatiele.....	1,317	26·43	− 0·48	1,858	42,794	2,278	76,375	16,265
Mount Ayliff..	369	25·04	− 1·99	206	20,302	233	7,908	5,350
Mount Currie.	1,084	§	§	2,334	16,438	2,603	128,418	17,011
Mount Fletcher	929	33·04	+ 5·30	241	26,503	235	**	5,407
Mount Frere..	684	27·19	− 0·57	348	43,048	366	16,478	9,450
Qumbu.....	564	†	†	267	35,013	253	14,116	8,500
Tsolo.....	649	23·38	− 3·34	427	33,664	453	13.274	10,452
Umzimkulu...	1,006	33·03	+ 4·99	564	40,820	621	15,075	9,353
Tembuland.								
Elliotdale.....	299	29·87	+ 2·70	250	30,771	275	18,795	7,390
Engcobo.....	1,063	34·91	+ 3·98	624	59,250	679	38,253	44,454
Mqanduli.....	508	24·97	− 0·84	310	41,560	310	19,189	9,274
St. Marks....	471	§	§	383	37,585	390	23,558	8,544
Umtata.....	632	26·40	+ 0·79	2,267	46,053	2,302	109,530	31,911
Xalanga.....	366	23·05	+ 0·94	793	15,142	735	12,434	8,862
Transkei.								
Butterworth..	263	27·65	+ 2·50	752	20,218	844	37,501	8,735
Idutywa.....	448	27·98	+ 5·35	440	31,458	440	30,271	10,960
Kentani.....	434	41·28	+ 8·12	274	40,817	325	16,825	8,628
Nqamakwe...	425	33·96	+ 5·69	246	33,820	256	23,437	9,210
Tsomo.....	397	31·04	+ 8·65	256	27,079	234	15,289	8,742
Willowvale...	537	52·85	+12·02	823	42,411	371	24,015	8,795

* Quinquennial census taken on the 4th May, 1926. † No record.
‡ Including Walvis Bay.—Area: 430 square miles; population: 282 Europeans, 895 other.
§ No station. ‖Records incomplete. ** Not available.
†† Included in Cape. ‡‡ New magisterial district.

DISTRICT STATISTICAL SUMMARY—*continued.*

Districts.	Area in Square Miles.	Recorded Rainfall, 1925.	Deviation from Normal Annual Rainfall.	Population Census, 1921.		* European Population Census, 1926, Preliminary Figures.	Taxable Income of Individuals, 1924–25.	Revenue Collections, 1924–25.
				European.	Non-European.			
CAPE OF GOOD HOPE (*continued*).								
		In.					£	£
Pondoland.								
Bizana	709	29·61	− 4·54	223	45,364	266	7,747	8,051
Flagstaff	428	24·60‖	− 9·41‖	200	32,166	264	**	5,762
Libode	535	26·18	− 0·49	172	29,076	199	10,202	6,648
Lusikisiki	931	40·74	− 2·91	230	54,275	258	14,734	10,726
Ngqeleni	446	29·26	− 1·14	184	40,667	225	8,861	7,600
Port St. Johns	340	47·74	− 1·33	324	21,482	412	16,300	6,213
Tabankulu	517	26·95	− 3·95	179	40,362	196	16,250	7,744
TOTAL—THE TRANSKEIAN TERRITORIES	16,351	—	—	14,676	948,138	16,023	714,835	300,038
GRAND TOTAL —CAPE OF GOOD HOPE.	276,966§	—	—	650,609§	2,132,110§	702,800	19,866,429	4,609,106

‖ Records incomplete. ** Not available.
§ Including Walvis Bay: Area, 430 square miles: Population, 282 Europeans, 895 other.

NATAL.

Alfred	570	29·98	− 2·28	650	28,427	1,294	25,095	12,024
Bergville	1,100	37·08	+ 3·36	927	18,472	997	15,500	9,434
Camperdown	368	34·47‡	+ 3·36‡	1,083	18,903	1,156	24,960	7,242
Dundee	836	42·21	+ 9·05	5,057	34,316	5,314	242,002	29,655
Durban	87	53·02	+ 8·15	58,140	101,599	69,972	5,010,735	811,412
Estcourt	1,872	42·44	+12·92	3,916	41,736	4,730	173,621	26,542
Helpmakaar	293	42·34	+ 6·71	423	8,812	388	7,635	10,840
Impendhle	700	33·73‡	− 2·70‡	400	9,858	439	9,637	4,760
Inanda	444	43·37	+ 7·61	3,807	67,861	4,441	187,450	14,749
Ixopo	976	41·39	+ 6·07	1,421	52,520	1,572	56,449	23,831
Klip River	1,374	47·21	+17·47	5,004	43,180	5,522	187,284	24,536
Krantzkop	429	41·04	+ 4·56	421	19,202	490	14,236	9,071
Lions River	609	37·70	+ 4·02	2,135	14,657	2,100	83,004	16,321
Lower Tugela	453	59·99	+17·31	1,687	46,259	1,938	165,096	25,950
Mapumulo	327	37·45‡	− 0·19‡	69	32,021	71	§	17,078
Msinga	721	43·08	+14·17	67	51,209	103	§	§
Newcastle	1,120	39·76	+ 1·87	4,966	31,938	4,941	115,282	17,478
New Hanover	520	47·46	+ 8·82	1,857	22,830	1,803	79,057	12,112
Ngotshe	1,400	35·09	− 0·72	653	25,729	1,092	14,022	12,841
Paulpietersburg	618	39·16	+ 2·43	1,468	12,940	1,547	21,644	7,409
Pietermaritzburg	411	49·34	+12·40	18,896	32,547	20,671	1,285,631	407,324
Pinetown	435	50·35	+12·72	2,836	41,974	2,904	47,349	19,155
Polela	1,210	†	†	1,035	23,315	1,047	15,919	10,293
Port Shepstone	534	42·42	− 1·54	1,634	36,775	2,269	54,386	17,421
Richmond	520	64·10	+18·86	965	23,225	967	38,719	9,874
Umvoti	871	43·78	+ 3·84	2,213	33,171	2,279	81,731	18,464
Umzinto	672	15·19‡	‖	1,935	58,965	2,568	117,767	35,110
Utrecht	2,048	41·41	+ 9·75	2,796	25,678	2,716	71,124	10,094
Vryheid	2,882	41·72	+ 6·36	5,595	48,568	6,388	210,154	30,178
Weenen	457	30·50	+ 3·49	771	21,420	789	12,371	8,254
TOTAL—NATAL (excluding Zululand)	24,857	—	—	132,853	1,038,189	152,508	8,367,860	1,673,667

* Quinquennial census taken on the 4th May, 1926. † No station.
‡ Records incomplete. § New magisterial district. ‖ No normal available.

DISTRICT STATISTICAL SUMMARY—*continued.*

Districts.	Area in Square Miles.	Recorded Rainfall, 1925.	Deviation from Normal Annual Rainfall.	Population Census, 1921.		* European Population Census, 1926, Preliminary Figures.	Taxable Income of Individuals, 1924–25.	Revenue Collections, 1924–25.
				European.	Non-European.			
NATAL (*continued*).								
		In.					£	£
Zululand—								
Emtonjaneni..	620	57·14	+24·53	493	17,958	552	13,196	7,952
Eshowe.....	671	91·95	+30·75	935	39,239	1,091	53,008	22,206
Lower Umfolozi	1,057	61·03	− 3·25	1,122	18,345	1,589	152,767	19,040
Mtunzini.....	431	66·01	+12·33	686	25,141	693	100,091	15,951
Nongoma.....	6,279	97·44	+60·35	345	91,427	799	19,960	34,465
Nkandhla.....	741	48·33	+15·58	168	32,888	206	8,806	14,214
Nqutu.....	628	28·51	− 1·48	236	29,373	248	‡‡	14,703
TOTAL—ZULULAND..	10,427	—	—	3,985	254,371	5,178	347,828	128,531
GRAND TOTAL—NATAL....	35,284	—	—	136,838	1,292,560	157,686	8,715,688	1,802,198
TRANSVAAL.								
Barberton....	4,681	36·76	+ 5·06	3,815	43,172	5,491	200,569	54,081
Belfast.....	1,391	38·07	+ 4·72	5,786	10,334	6,425	64,697	10,203
Benoni.....	132	32·00	+ 2·92	22,695	54,382	24,755	945,469	139,195
Bethal.....	1,270	27·78	− 2·27	7,972	17,730	8,086	116,315	23,688
Bloemhof.....	3,194	22·47	+ 4·35	13,659	16,128	13,065	63,539	18,108
Boksburg.....	60	26·92	+ 0·07	12,770	26,088	12,435	569,566	142,364
Carolina.....	1,811	26·62	− 2·83	2,921	17,810	3,131	89,467	13,675
Ermelo.....	3,003	27·22	− 3·75	9,886	34,888	9,341	282,644	36,760
Germiston....	130	32·16	+ 0·95	22,433	31,973	24,084	933,432	109,524
Heidelberg....	1,722	21·92	− 6·73	12,291	43,627	12,294	252,715	43,999
Johannesburg.	184	37·06	+ 3·75	153,878	141,455	172,138	12,105,298	5,099,567‡
Klerksdorp...	1,352	24·52	+ 1·88	5,003	9,535	8,104	97,381	24,031
Krugersdorp..	1,180	38·57	+ 8·17	29,126	57,596	30,977	1,059,121	153,435
Lichtenburg..	4,320	24·77	+ 1·69	13,636	25,856	13,733	80,093	20,740
Lydenburg....	3,494	23·93	− 0·88	5,659	63,203	6,496	83,919	26,086
Marico.....	3,651	28·79	+ 4·41	10,729	31,945	10,944	79,525	15,342
Middelburg...	3,832	25·86	− 4·20	11,947	50,473	13,087	185,424	34,398
Pietersburg,..	13,290	23·83	+ 2·19	10,838	215,320	12,685	178,297	76,194
Piet Retief....	1,616	43·58	+ 6·56	3,133	27,522	3,215	75,495	27,340
Pilgrims Rest.	5,728	55·62	+14·94	1,739	54,938	2,148	130,291	42,972
Potchefstroom	1,717	26·18	+ 2·16	17,100	19,121	18,623	268,404	41,926
Potgietersrust.	7,376	23·99	− 1·93	4,373	50,506	6,832	55,024	25,883
Pretoria.....	6,619	37·33	+ 7·88	68,451	124,029	80,511	3,782,950	3,854,398†
Rustenburg...	9,410	29·80	+ 2·95	22,849	65,728	28,417	153,249	68,541
Springs.....	120	31·55	+ 4·18	5,148	18,037	6,246	442,746	56,353
Standerton....	2,004	32·33	+ 0·98	9,648	24,317	10,822	204,875	31,768
Ventersdorp..	1,782	25·72	+ 1·95	7,120	13,426	9,277	47,643	11,027
Vereeniging...	997	28·27	+ 0·72	7,089	16,187	8,232	173,209	33,986
Wakkerstroom	2,198	37·40	+ 4·88	8,261	32,405	7,748	126,067	25,934
Waterberg....	8,555	29·27	+ 3·64	8,744	30,697	11,636	100,733	28,626
Witbank.....	1,061	31·42	+ 0·94	6,725	24,510	8,019	278,583	47,067
Wolmaransstad	1,872	18·79	− 1·46	10,169	10,857	11,247	79,266	15,184
Zoutpansberg.	10,698	46·77	+15·37	4,455	154,774	5,561	107,193	49,100
TOTAL—TRANSVAAL..	110,450	—	—	543,485	1,544,151	605,805	23,413,203	10,401,495

* Quinquennial census taken on the 4th May, 1926.
† Includes Union Departmental Revenues for nearly whole of Union.
‡ Including Mining Revenue for whole of Reef.
‡‡ Not available.

DISTRICT STATISTICAL SUMMARY—*continued.*

Districts.	Area in Square Miles.	Recorded Rainfall, 1925.	Deviation from Normal Annual Rainfall.	Population Census, 1921.		* European Population Census, 1926, Preliminary Figures.	Taxable Income of Individuals, 1924–25.	Revenue Collections, 1924–25.
				European.	Non-European.			
ORANGE FREE STATE.								
		In.					£	£
Bethlehem....	1,433	11·72‡	−12·00	8,341	25,070	9,093	237,779	30,626
Bethulie.....	1,125	25·58	+ 7·73	3,701	5,024	3,763	85,113	9,171
Bloemfontein.	4,269	23·04	+ 1·46	29,147	38,280	33,113	1,358,027	267,526
Boshof.....	3,905	16·64	− 2·48	7,551	9,703	7,217	67,271	16,508
Bothaville....	1,720	17·46	− 3·25	5,329	13,552	5,540	67,931	14,201
Edenburg.....	1,123	21·97	+ 6·43	3,860	5,615	4,072	85,259	14,886
Fauresmith...	3,569	19·15	+ 5·26	8,722	11,789	8,480	71,639	22,558
Ficksburg.....	652	25·86	− 4·31	4,755	13,802	5,291	141,602	17,309
Fouriesburg...	445	29·56	− 0·52	1,779	7,502	1,915	31,520	5,468
Frankfort.....	1,282	28·09	+ 0·43	7,468	15,370	8,176	195,219	25,340
Harrismith....	2,955	34·97	+ 9·31	8,132	43,627	8,736	307,434	42,220
Heilbron.....	1,846	27·43	− 1·91	9,460	23,034	9,870	263,580	26,783
Hoopstad.....	3,004	21·08	+ 0·66	5,704	9,583	5,796	33,993	8,293
Jacobsdal.....	1,219	17·89	+ 1·14	1,752	2,707	1,635	18,949	3,723
Kroonstad.....	2,247	21·97	− 2·24	11,615	26,081	12,606	407,733	48,512
Ladybrand....	1,115	32·51	+ 4·93	7,900	21,214	8,019	178,731	22,467
Lindley.....	1,101	27·64	+ 3·08	5,606	15,780	6,458	141,071	23,181
Philippolis....	1,430	21·48	+ 4·04	2,592	3,775	2,472	44,673	10,364
Reitz.....	1,045	31·99	+ 3·94	5,060	15,008	5,484	97,640	15,638
Rouxville.....	1,789	35·04	+11·43	7,143	12,263	7,063	133,886	13,382
Senekal.....	1,663	27·15	+ 1·86	7,485	23,396	8,267	195,925	29,640
Smithfield....	1,450	32·30	+12·22	3,488	4,519	3,876	124,772	12,775
Thaba 'Nchu.	1,308	27·40	+ 3·72	2,847	23,351	2,960	144,848	18,044
Vrede.....	2,178	24·41	− 2·89	6,075	23,031	7,282	182,970	30,286
Vredefort.....	1,308	22·16	− 5·34	10,259	12,331	9,920	125,803	25,475
Wepener.....	835	39·26	+12·20	2,637	5,904	3,009	131,222	15,208
Winburg.....	3,631	26·76	+ 4·90	10,148	28,958	11,591	224,647	31,836
Zastron.....	†	41·33	+13·62	†	†	†	111,225	12,529
TOTAL—ORANGE FREE STATE.	49,647	—	—	188,556	440,271	201,704	5,210,462	813,949
TOTAL—UNION.....	473,089	—	—	1,519,488	5,409,092	1,667,995	57,205,782	17,626,748

* Quinquennial census taken on the 4th May, 1926.
† Included in Rouxville.
‡ Records incomplete.

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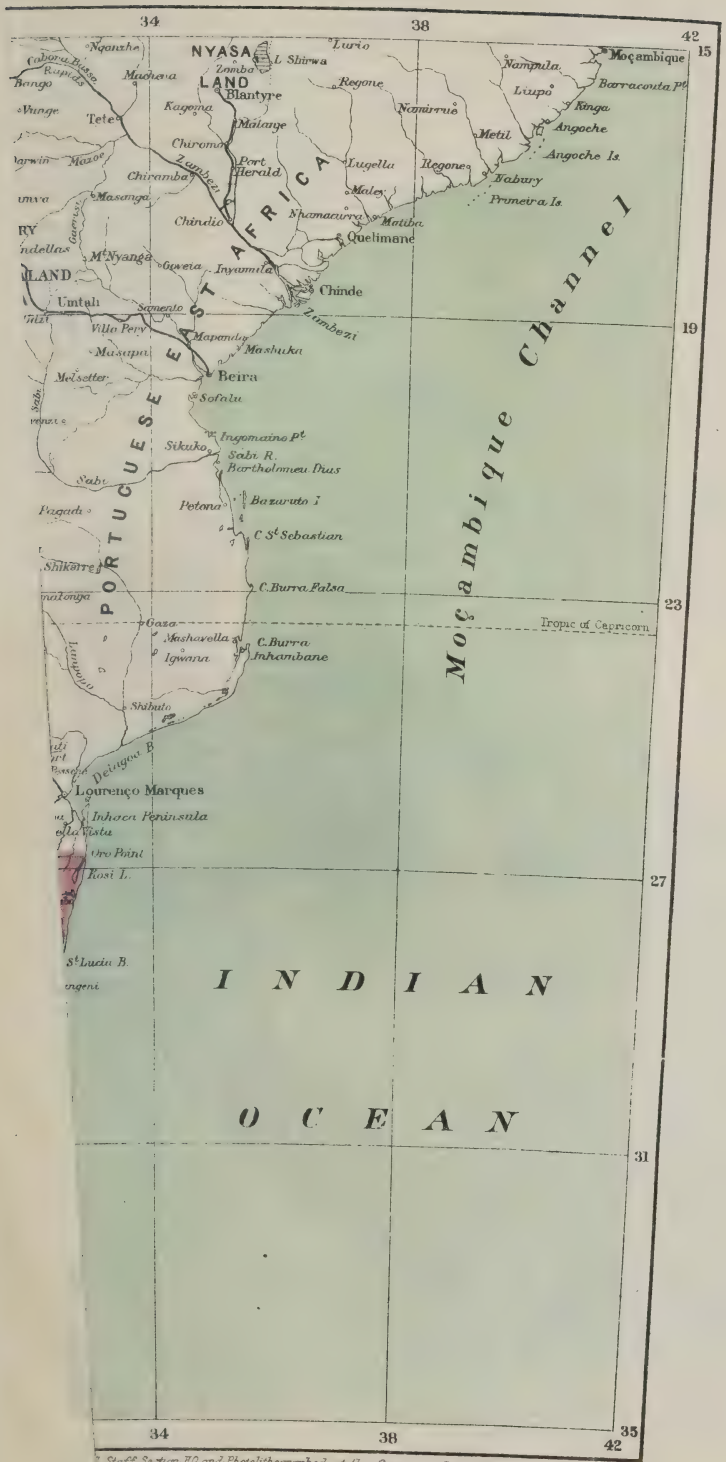

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OFFICIAL YEAR BOOK

OF THE

UNION OF SOUTH AFRICA
AND OF BASUTOLAND, THE BECHUANALAND PROTECTORATE AND SWAZILAND.

PART I.

UNION OF SOUTH AFRICA.

INTRODUCTORY.

STATISTICAL SERVICE AND SOURCES OF INFORMATION.

§ 1. Statistical Service of the Union.

1. **Statistical Information prior to the Constitution of the Union.**—Apart from the statistics collected at each census of population,* the statistics published up to the constitution of the Union were those procured by various Government departments as an incident of the ordinary work of their administration. Special mention may be made of the work of the Customs Statistical Bureau, established by the South African Customs Union in July, 1905, which gathered and published comprehensive statistics in regard to oversea trade and shipping for all the States in British South Africa. Apart, however, from such sources of information as those mentioned, there existed no other organized means of obtaining statistics. When, therefore, the Union was constituted statistics were lacking in regard to many matters of essential importance to those concerned in the administration and development of the country.

Particulars of early statistical information in South Africa are contained in previous issues (Nos. 1, 2, 3, and 4) of this Year Book.

The following official publications indicate the chief printed sources of earlier statistical information for the territories now comprising the Union :—

Cape of Good Hope : Cape Statistical Register (1887–1911).

Natal : Departmental Reports (1896–1900); Blue Book of Natal (1890–1893); Statistical Year Book (1893–1909).

Transvaal : Staats Almanak voor de Zuid Afrikaansche Republiek (1897–1899); Statistics of the Transvaal (1902–1909); Transvaal Statistics (1902–1906).

2. **Statistical Service subsequent to the Constitution of the Union.**—The *Census Act* of 1910 provided for the taking of a census in the year 1911 and in any subsequent year determined by the Government. Section 34 (ii) of the *South Africa Act*, 1909, requires, for electoral purposes, that there shall be a quinquennial census of the European population. In order to undertake these operations, a Census Office was established in Pretoria in 1910. Subsequently an effort was made by the Director of Census to collect all available statistics in a satisfactory form, and an annual statistical publication (*The Statistical Year Book*) was inaugurated in 1913, giving either in detail or in abstract such information as was available in different Government departments. Owing, however, to the fact that legal authority

* A table giving the date of the taking of each census in the four Colonies now constituting the Union and of the first and subsequent censuses in the Union will be found in Chapter XXIV.

for the collection of statistics was wanting, the work was found in many ways to be unsatisfactory, and, in 1914, the Union Parliament provided the necessary powers for a complete system of statistics by passing the *Statistics Act* (No. 38 of 1914), empowering the collection and publication of statistics in respect of the following matters :—

(*a*) population ;
(*b*) vital, social, educational, and industrial matters, including rates of wages, cost of living, prices of commodities, and rents of habitations ;
(*c*) local government ;
(*d*) employment and non-employment ;
(*e*) imports and exports ;
(*f*) immigration and emigration ;
(*g*) posts, telegraphs, and telephones ;
(*h*) factories, mines, and productive industries generally ;
(*i*) agricultural, horticultural, viticultural, dairying, pastoral, and fishing industries ;
(*j*) banking, insurance, and finance ;
(*k*) railways, tramways, shipping and transport ;
(*l*) the tenure, occupation, and use of land ;

and any other matter prescribed by the Minister of the Interior.

For various reasons the *Statistics Act* was not promulgated until 1st April, 1917, but on that date a central Statistical Office for the Union was established. The following is an enumeration of the main provisions of the Act :—

(i) Provision is made for the appointment of an administering officer, and the *Director of Census* was appointed for the purpose.
(ii) A Statistical Council is provided for, to consist of not less than four and not more than eight members. The function of the Council is to advise the Minister in regard to matters connected with the Act.
(iii) Arrangements, if necessary or convenient, may be entered into with the Provincial Administrations with a view to the collection of statistics by means of officers of such Administrations.
(iv) Every person of whom information is required under the Act is compelled to supply it on demand.
(v) Officers under the Act, for the purposes of inspection and making inquiries, are given powers of entry upon any land or premises upon or within which any industrial undertaking is carried on, or persons are employed.

By the *Statistics Amendment Act* (No. 5 of 1919) authority was further granted for the issuing of regulations, if necessary, requiring particulars and information to be furnished by persons in prescribed areas or as to the addresses and occupations of persons or in respect of prescribed periods.

3. **Organization of Statistical Collection.**—(i) *General.*—The principle involved in the statistical organization of the Union under the *Statistics Act* is that of centralization. The statistics of South Africa prior to the promulgation of this Act were open to arraignment amongst other things on the following grounds, viz. : The restricted and incomplete character of available statistics ; the lack of coherence and common purpose ; the unevenness of quality ; in many cases the lateness of their presentation and their inaccessibility ; the duplication of publication and the inevitable conflict occasionally resulting therefrom, due to the detachment of the various Government Departments concerned with statistics ; and the expense of production due to lack of skilled supervision and the absence of mechanical tabulating appliances.

Centralization provides a remedy for the defects enumerated ; and already a large amount of co-ordination has been secured. Amongst certain operations for procuring statistics in regard to which important information was previously lacking, the following may be mentioned as having been initiated by the Union Office of Statistics :—

(*a*) An annual census of manufacturing industries.
(*b*) An annual census of agricultural and pastoral production.
(*c*) Investigations in regard to rates of wages, hours, and conditions of labour wholesale and retail prices, variations in the cost of living and kindred matters.

On the advice of the Statistical Council further branches of public statistics, including the subjects of banking, rates of exchange, insurance and general finance are obtained. The series of publications initiated has included *The Official Year Book* of the Union giving the substance of all available statistics and official information ; *Monthly Bulletins* designed to bring the information in the *Year Book* up to the latest possible date ; and sectional publications and monographs giving in greater detail from time to time the results of the various census operations and statistical investigations conducted by the Office.

The following schedule indicates the allocation of statistical collection among the various Government departments of the Union and provides a measure of the extent to which the work has so far been co-ordinated :—

Chapter of Official Year Book.	Subject.	Department or Office Responsible for Administration.	Office Responsible for Statistics.
XIII.	Agriculture—		
	Production		Census and Statistics Office
	Co-operation	Agriculture	Agriculture.
	Education	Agriculture	Agriculture.
XVIII.	Commerce—		
	Trade	Customs and Excise	Customs and Excise.
	Excise	Customs and Excise	Customs and Excise.
	Patents, etc.	Justice	Patents.
	Trading Licences	Provincial Administrations	
XXIII.	Currency, Banking & General Finance—		
	Banking	Treasury	Treasury.
	Land Bank	Treasury	Land Bank.
	Building Societies	—	Census and Statistics Office.
	Assurance	Treasury	Census and Statistics Office and Treasury.
	Registration of Companies, etc.	Justice	Registrars of Companies.
	Bonds	Lands	Registrars of Deeds.
	Insolvencies	Justice	Census and Statistics Office.
IV.	Education—		
	Higher	Education (Union)	Education (Union).
	Primary and Secondary	Provincial Administrations	Census and Statistics Office.
	Private Schools	—	Census and Statistics Office.
	Libraries, Museums, etc.	Interior	Census and Statistics Office.
	Newspapers	Posts and Telegraphs	Posts and Telegraphs.
II.	Electorate	Interior	Interior.
XV.	Fisheries	Provincial Administrations	Census and Statistics Office.
XIV.	Forests—		
	Government Undertakings.	Forests	Forests.
	General	Forests	Census and Statistics Office.
XIX.	Harbours	Railways and Harbours	Railways and Harbbours.
XII.	Irrigation and Water Conservation—		
	Irrigation	Irrigation	Irrigation.
	Other Water Conservation	—	Census and Statistics Office.
IX.	Justice—		
	Admission of Advocates, etc.	Justice	Justice.
	Crime	Justice	Census and Statistics Office.
	Prisons	Prisons	Census and Statistics Office.
V.	Labour and Industrial Conditions—		
	Employment and Unemployment	Labour	Labour.
	Wages and Hours of Labour	Labour	Census and Statistics Office.
	Trade Unions and Associations of Employers	Labour	Census and Statistics Office.
	Industrial Disputes	Labour	Labour.
	Miners' Phthisis	Mines and Industries	Miners' Phthisis Board and Bureau.
XI.	Land Survey, Tenure, and Occupation—		
	Land Settlement	Lands	Lands.
	Registration of Deeds	Lands	Registrars of Deeds.
	Valuation of Property	Provincial Administrations	Provincial Administration (Cape).
XVII.	Manufacturing Industries	Mines and Industries	Census and Statistics Office.
I.	Meteorology	Irrigation	Chief Meteorologist.
XXIV.	Migration	Interior	Census and Statistics Office.
XVI.	Mines	Mines and Industries	Government Mining Engr.
XX.	Motor Vehicles	Provincial Administrations	Census and Statistics Office.
XXVI.	Native Affairs	Native Affairs	Native Affairs.
XXIV.	Naturalization	Interior	Interior.
X.	Police and Protection	Police and Defence	Police and Defence.
XXIV.	Population	—	Census and Statistics Office.
XXI.	Posts, Telegraphs, and Telephones	Posts and Telegraphs	Posts and Telegraphs.
VI.	Prices and Cost of Living	—	Census and Statistics Office.
VII.	Public Health—		
	General	Public Health	Public Health.
	General Hospitals	Provincial Administrations	Provincial Administrations and Census and Statistics Office.
	Mental Hospitals	Interior	Interior and Census and Statistics Office.
	Leper Institutions	Public Health*	Public Health.*
	Venereal Diseases Hospitals	Public Health	Public Health.
	Registration of Medical Practitioners, etc.	Public Health	Public Health.

* From the 1st April, 1924; previously Interior.

Chapter of Official Year Book.	Subject.	Department or Office Responsible for Administration.	Office Responsible for Statistics.
XX.	Railways	Railways and Harbours	Railways and Harbours.
XX.	Roads and Bridges	Provincial Administrations	Census and Statistics Office.
XIX.	Shipping	Customs and Excise	Customs and Excise.
VIII.	Social Condition—		
	Ecclesiastical	—	Census and Statistics Office.
	Charitable Institutions	Provincial Administrations	Census and Statistics Office.
	Liquor Laws	Police	Census and Statistics Office.
	Divorces	Justice	Census and Statistics Office.
XXII.	State Finance—		
	Union	Treasury	Treasury.
	Provinces	Provincial Administrations	Treasury and Provincial Administrations.
XX.	Tramways	—	Census and Statistics Office.
XXV.	Vital Statistics	—	Census and Statistics Office.

(ii) *The Statistical Council.*—The Statistical Council is constituted as follows:—

Statutory Members:

Sir Johannes van Boeschoten.
Mr. Duncan Eadie.
Mr. J. G. van der Horst.
Professor R. A. Lehfeldt, D.Sc.
Mr. Robert Niven.
Dr. A. J. Orenstein, C.M.G.
Mr. A. M. Spies.

Chairman:

Dr. J. E. Holloway (Director of Census).

Official Members:

Agriculture.—Mr. P. J. du Toit, Secretary (Alternate: Col. G. N. Williams, D.S.O., Under-Secretary); Dr. F. E. Geldenhuys, Division of Economics and Markets.

Births and Deaths.—Mr. C. Boezaart (Pretoria) to alternate with Mr. C. W. H. Smit (Cape Town), Registrars.

Customs.—Mr. J. G. de Beer.

Labour.—Mr. C. W. Cousins, M.A., Secretary for Labour.

Mines and Industries.—H. Warington Smyth, C.M.G. (Alternate: Colonel K. Harvey); Sir Robert Kotze.

Public Health.—Dr. W. A. Murray.

Railways and Harbours.—Mr. W. Marshall, Financial Assistant to Railways and Harbours Administration.

(iii) *Office of Census and Statistics.*—The office of Census and Statistics is organized in the following sections:—

Section.	Scope of Duties.
Administration	General executive work.
Population	Population census (quinquennial); vital statistics; migration; hospitals.
Production	Agricultural, pastoral, and fisheries censuses; statistics of manufacturing industries (annual, quarterly, and monthly).
Social	Labour and wages; Retail prices (monthly); wholesale prices (quarterly); annual rent census; crime and penology; insolvencies; divorces; insurance; local government; charitable institutions; schools; miscellaneous.
Tabulation	Tabulation by means of electrical machinery.
Compilation and Computing	Tabulation by hand; calculations by machine or otherwise.
Publications	Publications of the Census Office; library; publication of volume of abridged annual reports of Government departments; revision of works of reference.

(iv) *Field Organization.*—In regard to a large number of the operations involved in the system of statistical organization above indicated the sections named are responsible for the organization of field collection, which involves in every case a very large amount of labour. For certain purposes, such as the censuses of agriculture and manufactures, the Union Police Force supplies the necessary field machinery in a most adequate manner. The police organization covers every part of the country and has been perfected to such an extent that for any operations of this kind it is able to render efficiently a service which

otherwise would involve a very heavy annual expenditure from public funds. Unfortunately the circumstances inevitably surrounding a population census render it impossible to utilize the assistance of the Police Force in this connexion to any very great extent, with the result that a complete system of field organization has to be improvised on the occasion of each census, involving in the Union, as in almost all other countries, a very serious but unavoidable item of public expenditure.

§ 2. Archives and Records.

1. **Archives.**—For many years prior to the constitution of the Union the Government of the Cape of Good Hope maintained a keeper of the archives, whose time was entirely employed in examining, indexing, and supervising the binding of the records relating to the period till 1806. The later records were not in his charge. In the Transvaal an Archives Branch of the Colonial Secretary's Department was constituted soon after the establishment of Crown Colony Government in 1902, to take custody of and examine that portion of the South African Republic records, which was preserved in the late State Secretary's Department, and such other records as might be collected. The records referred to were in a fairly complete condition and in a good state of preservation. An important work which was carried out subsequently was the translation into English of the Executive Council Resolutions, and the preparation of an English index. The English translation and index were printed. Neither in Natal nor in the Orange Free state was there a specially constituted Archives Department. Since the constitution of the Union, work in arranging and indexing the archives has been continued, partly in the ample accommodation provided in the Union Buildings in Pretoria, and partly in the Parliament Buildings and the new Supreme Court Buildings in Cape Town, There are also archives retained in Pietermaritzburg and Bloemfontein.

In 1918 the Government appointed an Archives Commission to supervise the publication of a portion of the archives and to recommend from time to time the steps considered desirable for the collection, preservation, and dis ribution of all written matter bearing on the past history and records of South Africa.

Act No. 9 of 1922 gave statutory authority to this Commission and made provision generally for the custody and control of the public archives of the Union. A chief archivis was appointed and archives depôts were created.

[Previous issues (Nos. 1, 2, and 3) of this Year Book contain notes on the Archives in each of the four Provinces of the Union, and on other similar records.]

2. **The Earliest Records of South Africa up to the First British Occupation, 1652–1795.**—An article on this subject by the Chief Archivist of the Union was published in the fifth and sixth issues of this Year Book.

3. **Records of the Cape of Good Hope during the First British Occupation, 1795–1803.**—A short article on this subject by the Chief Archivist of the Union was published in the seventh issue of this Year Book. The same author—C. Graham Botha—has published a detailed account of the records of this period in a work entitled "A Brief Guide to the Various Classes of Documents in the Cape Archives, 1652–1806."

4. **Records of the Cape of Good Hope during the days of the Batavian Republic, 1803–1806.***—The Treaty of Amiens in 1802 laid down that the Cape of Good Hope, then in occupation by Great Britain, should be ceded to Holland. The latter was governed by the Batavian Republic, which appointed Mr. Jacob Abraham de Mist, LL.D., a member of the Department for Indian Affairs, to draw up a report with reference to the future government of the Cape. This memorandum, which contains the deliberations and recommendations of the Department for Indian Affairs, with reference to the form and method of government which should ultimately be adopted at the Cape, is of great value to the historical student.†

De Mist made long and careful investigation of all the records and reports dealing with the Cape which were preserved in the office of the Dutch East India Company. He read all the available printed books of travel which were of value. Although he had undertaken a big task, yet he accomplished it in a competent manner, and his memorandum was approved of by the Batavian Government. His Report deals with the historical and geographical facts about the Cape, its population, religion, education, agriculture, mines, political government, town and country administration, judicial establishment, commerce, slaves and natives, military matters, finance, and the administration of everything dealing with the East India trade.

When the time arrived, he was sent out to the Cape to receive the country from the hands of the British, instal the new government officials, make such alterations as were necessary and issue instructions which it was anticipated would be eventually drafted into a Charter for the Colony. The regulations which he was to draw up were to be only provisional in character and were to be sent to Holland for approval before promulgation.

* Contributed by C. Graham Botha, Chief Archivist of the Union.
† Published by the Van Riebeek Society in 1920—Volume 3 of the Society's Publications.

In one of his early proclamations issued at the Cape he announced to the colonists that "It is the will of the Batavian people that this settlement will be no longer dependent upon the High Regency at Batavia, nor upon any commercial body whatsoever; the constitution has abolished all particular privileges of that nature, and the inhabitants of the Colony of the Cape will know in future no other Government than that which the Batavian people has appointed over themselves."

The provisional regulations issued during this period, 1803–1806, were sent to Holland for approval, but before they could be considered there the Cape was retaken by the British. Several of these were enforced, notwithstanding the absence of confirmation, and continued in use after 1806 until modified or repealed from time to time.

The executive and legislative authority during this period was like that of the Company's days vested in the Governor and a council. The original resolutions of this Council of Policy are to be found in the Cape Archives. The outgoing and incoming letters addressed from and to the Council to public officials, boards, or private individuals are extant, as well as the instructions issued to the government officials and departments.

From the resolutions and the letters much material will be found for the history of the period. The instructions give an insight into the administration of the government and are a valuable source of information. They relate to the following departments: Colonial Treasury, Court of Justice, Secretary and Secretariat of Policy, Substitute Secretary and Chartermaster, First Commissioner of Secretariat, Dispatch Clerk, Clerks generally, Receiver-General, Insolvent Chamber, Regulations, Management and Administration of Loan Bank, Orphan Chamber, Burger Senate, Receiver and Controller of Customs, Ordinary Receiver, Director, Bookkeeper and Master Printer, Printing Office.

There was little change in the judicial administration from that under the previous governments. There was the Superior Court, the Court of Justice established under the rule of the Dutch East India Company, which had civil and criminal jurisdiction. It was the Court of Appeal from judgments of the inferior courts, with the right of appeal from its sentences to the National Supreme Council at the Hague, and not, as in the British régime, to the governor, who was vested with an appellate jurisdiction, and if the amount in dispute was over £500 to the Privy Council. In each country district there was a Board of Landdrost and Heemraden, which took cognizance of civil cases up to a certain sum and also acted in an administrative capacity. This board not only formed a court of law but dealt with matters now entrusted to municipalities and divisional councils. In Cape Town there was another inferior court, the Court of Petty Cases, which had jurisdiction over small cases.

The civil and criminal records of the Court of Justice for 1803–1806 are complete in the Archives, and those referring to the Landdrost and Heemraden will be found with the records of the respective districts.

Before de Mist left Holland and during his stay at the Cape he kept his official correspondence separate, which includes letters received and dispatched and minutes. These form a useful series for the student who desires to study this period.

Taking the records of the Batavian Government as a whole, they are fairly complete, and to the student of this short period of our history will prove of the utmost value. This period is very interesting to study, for it shows a transitory stage between the methods of the Company's days and the more enlightened methods of the new régime. The general administration of the country was greatly improved during the latter time, and had the Cape remained under the Batavian Government greater satisfaction would have been caused to the colonists than during the earlier years.

§ 3. Bibliography of the Union of South Africa.

1. **Government Reports.**—The following is a classified list of the principal reports and similar publications issued by Government departments in the Union. In conjunction with certain of the periodicals and reference works mentioned in the next paragraph, it furnishes a guide to the official bibliography of the Union. Owing to the increasing number of reports being issued it has been found necessary to curtail the list, and such publications as are deemed to be of suspended interest have been omitted. No mention has been made of numerous publications which have emanated from the Publicity Department of the South African Railways and the South African Publicity Agent's Office in London. These, though interesting and informative, are of a special character. It is to be noted also that the annual reports of a number of Government departments have since 1920 been published in a somewhat abridged form in a combined volume.

REPORTS OF SELECT COMMITTEES, COMMISSIONS, ETC., AND OTHER GOVERNMENT PUBLICATIONS, SINCE 1910, CLASSIFIED ACCORDING TO SUBJECTS.

Agriculture.—Annual Report of Department of Agriculture; Reports of Select Committee on Drought Distress Relief Act; Reports (various) South Africa's Fresh Fruit Export Trade (1912); Storage and Handling of Grain in Europe, the United States and Canada (1915); Departmental Committee on Wheat Growing (1919); Rinderpest Expedition; Taxation of Incomes derived from Farming Operations (1919); Meat Trade Commission (1920); Egg Export Inquiry (1921); Sugar Inquiry Commission (1922); Drought Investigation Commission (1922 and 1924); Improvement in Transport of Live Stock and Development of Export Meat Trade (1923); Annual Census of Agricultural and Pastoral Production (from 1917–18).

Archives.—Annual Report of Department of Interior.

Asiatics.—Report of Select Committee on Disabilities of British Indians in the Transvaal (1919); Annual Report of Department of Interior; Asiatic and Chinese Registration; Indian Immigrants; Reports (various); Correspondence between the Secretary of State for the Colonies and the Governor-General and Ministers on the Draft Immigrants' Restriction Bill (1911); Indian Inquiry Commission (1914); Protector of Indian Immigrants (Natal); Asiatic Inquiry Commission (1921).

Child Welfare.—Annual Report of Secretary for Education (Union).

Commerce.—Annual Reports of Trades Commissioners; Annual and Monthly Trade Reports by the Department of Customs and Excise; Select Committee on Beef and Export Bounties Bill (1923); Reports (various); Exports of Meat (1921); Egg Export Inquiry (1922); Delegation to Investigate Reciprocal Trade Relations between the Union and Kenya, Uganda, and Tanganyika (1923); Fruit Export Trade (1925).

Cost of Living.—Reports of Select Committees on Cost of Living Commission Reports (1919); Social Statistics (Wages, Prices, etc.) from 1919 to 1922; Profiteering Bill (1920); Rents, Profiteering and Speculation in Foodstuffs Prevention Act (1921), Prices of Produce (1923); Reports (various); Economic Commission (1913); Special Commission on Cost of Living in Union (1916); Cost of Living Commission—General Report; Interim Reports (Wheat, Flour, and Bread) and Summary of Commission's Work to 19th January, 1918; Profits Report (1919); Interim Report, 1920 (Rise in Prices of Indian Foodstuffs; Government Assistance to Co-operative Societies; Control of Imports; Supervision of Distribution; Proposed Increase in the Manufacturers' Price of Candles).

Crime.—Reports of Select Committees on Suppression of Stock Thefts (1923); Annual Reports, Department of Justice, Police, and Prisons; Report of Commission on Assaults on Women (1913); Report on Statistics of Crime for Year 1923.

Currency and Banking.—Select Committee on Embargo on Specie (1920); Reports (various); Gold Conference (1919); Currency Conference, Pretoria (1921); Resumption of Gold Payments by Union (1925).

Defence.—Annual Report of Defence Department; Report of Select Committee on Provision for South African Forces in Present and Previous Wars (1919); Reports (various); War Stores Commission; Custodian of Enemy Property; Martial Law Inquiry Judicial Commission (1922); Commission of Inquiry (1925).

Education.—Annual Report of Secretary for Education (Union); Reports of Superintendents of Education (Cape, Natal, Transvaal, Orange Free State); Reports (various); University Commission (1914) Medical Inspection of Schools (Transvaal); Vocational Training and Continuation Classes (Transvaal, 1914); Committee on Industrial Education (1916); Agricultural Education (1922); South African Museum; Education Administration Commission (1923 and 1924).

Electorate.—Annual Report of Department of Interior (Registration of Voters; Parliamentary Elections) Reports of the Delimitation Commissions; Select Committee on Women's Enfranchisement Bill (1924); Amendment of South Africa Act (1925).

Excise.—Annual Reports of Department.

Finance.—Annual Reports of the Controller and Auditor General; Annual Reports of the Commissioner of Inland Revenue; Reports of Select Committees on Public Accounts; Revision of Pensions and Superannuation Funds (1920); Embargo on Export of Specie (1920); Reports (various); Public Debt Commissioners' Financial Relations Commission; Schedule of Pensions (Annual); Estimates of Revenue and Expenditure; Resumption of Gold Payments by Union (1925).

Fisheries.—Reports (Cape and Natal); Fisheries and Marine Biological Survey (1921–22).

Forests.—Annual Reports of Department of Forests; Reports on Afforestation Schemes (1918–19).

Game.—Annual Reports, Government Game Reserves, Transvaal.

Harbours (see also *Railways and Harbours*).—Annual and Monthly Trade Reports of the Department of Customs and Excise; Reports (various); Railways and Harbours Board (1922) on Walvis Bay Harbour Improvements; Sir George Buchanan on Principal Harbours of the Union (1923); Durban Harbour Improvement of Entrance (1924); Port Elizabeth Proposed Harbour Improvements (1924).

Hospitals.—Returns of Hospitals (Cape, Natal, Transvaal); Annual Reports of Provincial Auditors.

Housing.—Reports (various); Social Statistics (Wages, Prices, etc.) from 1919 to 1922; Central Housing Board, Housing Committee (1920 and 1924); Rents Charged for Shops and Business Premises (1925).

Industries.—Annual Reports of the Secretary for Mines and Industries; Annual Census of Manufacturing Industries (from 1915–1916); Report of Select Committee on Industrial Conciliation Bill (1923); Electricity Supply Commission—Annual Reports; Reports on Establishment of Electrical Undertaking at Witbank (1924), on Electrical Undertaking at Cape Town to provide power for Railway Electrification; Reports (various); Advisory Board of Industry and Science; Industries Advisory Board and Scientific and Technical Committee; Commission to Inquire into Conditions of Trade and Industries (1912), issued by Board of Trade and Industries.

Insurance.—Returns of Cape Life Assurance Companies.

Irrigation and Water Supply.—Annual Reports, Irrigation Department; Reports of Select Committees on Irrigation Projects; Hartebeestpoort Irrigation Scheme (Acquisition of Land) Bill (1918); Klip River Valley, Springs (1919).

Justice.—Annual Reports; Select Committee Reports on Criminal Procedure and Evidence Bill and Magistrates' Courts Bill (1916); Stock Theft Bill (1922); Adoption of Children Bill (1923).

Labour.—Reports of Select Committees on European Employment and Labour Conditions (1913); Apprenticeship Bill and Regulation of Wages Bill (1921) (to which was also referred the Juvenile Affairs Bill); Workmen's Compensation Bill (1924); Industrial Disputes and Trade Unions Bill (1924); Annual Report, Department of Mines; Labour; Reports (various); South African Delegate to International Labour Conferences; Kakamas Labour Colony Commission of Inquiry (1919); Unemployment Commission (1922).

Land Bank.—Annual Reports: Land and Agricultural Bank, Transvaal Land and Agricultural Bank; Land and Agricultural Loan Fund (Natal and Orange Free State).

Lands.—Annual Reports: Department of Lands, Registrars of Deeds, Surveyors-General; Reports of Select Committees on Crown Lands (on Preliminary Report of Kakamas Commission of Inquiry, 1921); Crown Lands (Sunday River Settlements, 1925); Report of Commission Inquiring into Matters concerning Surveys of Land (1921).

Language.—Report of Commission on the Language Ordinance (1917).

Lepers.—Annual Report, Department of Interior: Leper Asylums; Report of Government Research Bacteriologist, 1913: Leprosy.

Local Government.—Accounts, Local Authorities, Transvaal; Municipal Accounts, Transvaal; Annual Reports of the Provincial Auditors; Select Committee on Petitions of Simonstown and others (1925); Report of Local Government Commission (1915 and 1921).

Mental Patients.—Annual Report, Department of Interior; Mental Hospitals; Report of Commission on Mentally Disordered and Defective Persons.

Migration.—Annual Report of the Department of Interior; Report of Chief Immigration Officer, Cape (1913); Annual Reports on Statistics of Population (1916 to 1918); Special Reports of Census Department (1925).

Miners' Phthisis.—Reports of Select Committees on Working of Miners' Phthisis Acts (1912, 1920, and 1924); Miners' Phthisis Consolidation Bill (1925); Reports (various); Miners' Phthisis and Pulmonary Tuberculosis (1912); Miners' Phthisis Prevention Committee, Commission of Inquiry into Working of Miners' Phthisis Acts (1919); Interim Report of Miners' Phthisis Commission (1920); Miners' Phthisis Board and Miners' Phthisis Medical Bureau.

*Mines.**—Annual Reports; Department of Mines, Geological Survey; Annual and Monthly Reports Government Mining Engineer; Reports of Select Committees; East Rand Gold-bearing Areas (1916); Zoutpan Lease (1917); Gold Mining Industry (1918); South African Alkali and Lichtenburg Salt Pan Leases Bill (1922); Transvaal Precious and Base Metals Act, Further Amendment Bill (1923); Precious Stones Bill (1924); Reports (various); Mining Industry Board, Explosives; Notes on Coking Tests of Transvaal Coals (1911); Mine Benefits Funds Committee of Inquiry (1911); Means for Prevention of Explosion of Gas and Dust in Natal Collieries (1912); Natal Mines Rescue Stations (1914); Petroleum Prospects (1914); Witwatersrand Earth Tremors Committee (1915); Memorandum on Far East Rand (1916); Underground Mining Contracts (Witwatersrand Mines); State Mining Commission (1916–1917); Manganese Deposits (1917); Low Grade Mines Commission (1919); Coal Commission (Grading and Pooling of South African Coals, 1921); Mining Industry (Brace Commission, 1922).

Native Affairs.—Annual Report of Native Affairs Department; Reports of Select committees on Native Affairs: Third Report, 1913 (Allotments Granted to Natives in Cape Province), First Report, 1913 (Agreement between Portuguese Government and Witwatersrand Native Labour Association), Second Report, 1914 (Recognition of Native Ministers of Religion belonging to Native Separatist Churches as Marriage Officers and Granting of Church and School Sites in Native Locations to such Bodies), Second Report, 1916 (Lady Frere Water Supply), Third Report, 1917 (Grants and Reservations of Land), Fourth Report, 1917 (Native Affairs Administration Bill), Second Report, 1920 (Native Affairs Bill), First Report, 1923 [Natives (Urban Areas) Bill and Native Registration and Protection Bill]; Reports (various); Natives Land Commission, Native Grievances Inquiry (1913–14); Native Disturbances at Port Elizabeth (1920); Native Pass Laws (1920), Native Affairs Commission (1921); Native Location Surveys (1922); List of Government Headmen.

Parliament.—Conference on Future Constitution of Senate (1920); Joint Committee on use of Afrikaans in Bills, Acts, and Official Documents of Parliament (1925); Joint Committee of Senate and House of Assembly on Versional and other Discrepancies in Bills (1925); Senate Debates (1924–25); Assembly Debates (1924–1925).

Pensions.—Reports of Select Committees on Pension Fund for White Miners (1916) on War Pensions and Returned Soldiers (1920), Revision of Pensions and Superannuation Funds (1920), on Public Service and Pensions Bill (1923); Schedule of Pensions (Annual); Memorandum on Old Age Pension Scheme (1924); Report of War Pensions Commission (1925).

Police.—Annual Report of Department of Police.

Population.—Population Census Reports (1911, 1918, and 1921); Annual Reports on Statistics of Population (from 1916 to 1918).

Posts. Telegraphs, and Telephones.—Annual Report of the Department.

Prisons.—Annual Report of Prisons Department.

Property.—Report of the Valuation Commission (Cape, 1913).

Provincial Administration.—Report of the Provincial Administration Commission (1915); Report of the Provincial Finances Commission (1923).

Public Debt.—Reports of the Public Debt Commissioners.

Public Health.—Annual Report of Department of Public Health; Reports of Select Committee on Clause 34, Dental and Pharmacy Bill (1924); Reports (various); Health Officers (Cape Town); Influenza Epidemic Commission (1919); Tuberculosis Commission; Tuberculosis Survey of Union (1924); Commissioner for Mental Hygiene (1924).

Public Service.—Annual Report of the Public Service Commission; Reports of Select Committee on Public Service and Pensions Bill (1923); Reports of Public Service Reorganization Commission (1911–12); Reports of the Public Service Commission of Inquiry (1918–1920); Uniform Scales of Pay for Teachers (1923).

Railways and Harbours.—Annual Reports; Department of Railways and Harbours, Statement of Accounts, Estimates, Railway Board; Reports of Select Committee on Railways and Harbours; Various Service Regulations (1913); Overland Coal Rates (1916); Financial; On the Railways and Harbours Service Act Amendment and Further Provision Bill (1923); Reports (various); Railway Workshops (1911–12); Control and Management of Railways and Harbours; Railway and Harbour Staff (1912); Railway Commission of Inquiry (1914); Proposed New Lines of Railway; Electrification of Natal Main Line; Electrification of Certain Sections; Grain Elevators; Durban Grain Elevator Commission (1924).

Returned Soldiers.—Reports of Select Committee on War Pensions and Returned Soldiers (1920); Reports dealing with subject of Returned Soldiers and Assistance Granted to them.

Roads.—Report of Engineer-Superintendent of Roads, Natal.

Social Condition.—Reports of Select Committees on Drunkenness in the Western Districts of the Cape Province (1918); on the Working of the Transvaal Liquor Laws (1918); Social Statistics (Wages, Prices, etc.) from 1919 to 1922.

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*See also bibliography included in Chapter XVI of this Year Book.

South-West Africa.—Report of the Administrator; Estimates of Revenue and Expenditure; Correspondence between the Secretary of State for the Colonies and the Governor-General on the Subject of Mandate for South-West Africa; Report of a Tour in Ovamboland (1915); Censuses of Population and Agriculture 1921; Report of Commission on Future Form of Government (1921); Report on the Rebellion of the Bondelzwarts (1922).

Strikes.—Annual Report of Department of Mines and Industries; Reports of Commissions: On Witwatersrand Disturbances (1913); On Mining Industry (Brace Commission, 1922).

Vermin.—Reports of Vermin Extermination Commission (Cape, 1924).

Veterinary.—Report of the Director of Veterinary Research; Annual Reports of the Department of Agriculture.

Vital Statistics.—Annual Reports on Statistics of Population (1916 to 1918).

Wages.—Reports of Select Committees on Garnisheeing Wages (1913); Social Statistics (Wages, Prices etc.) from 1919 to 1922.

2. **Works of Reference and Periodicals.**—The list hereunder enumerates the principal publications of a periodical or special character issued in the Union by public and official bodies and societies and by publishing companies. The list does not claim to be exhaustive :—

(a) *Year Books, Directories, and General Works of Reference—*

Official Year Book of the Union of South Africa.
South African Municipal Year Book.
South and East African Year Book and Guide (*Union-Castle Company*).
South African Who's Who (*Ken. Donaldson*).
Official Directory of Industrial Establishments, 1921.
Directory of South African Manufacturers, 1921 (*South African National Union*).
Federation of British Industries—Annual Reports on British South Africa.
Hortor's Diary and Law List for South Africa.

(b) *Agriculture, Industries, and Commerce—*

Periodicals—

Journal of the Department of Agriculture (*Official*).
The Sun and Agricultural Journal of South Africa.
Journal of the Western Province Agricultural Society.
Die Boere Koerant—The Farmers' Gazette (*Transvaal Agricultural Union*).
South African Sugar Journal.
South African Dairyman and Live Stock Journal.
Natal Farmers' and Agricultural Gazette.
The Farmers' Weekly.
The Farmers' Advocate.
Die Landbouweekblad.
South African Fruitgrower and Smallholder.
South African Gardening and Country Life.
*Journal of Industries (*Official*).
Industrial South Africa (with which is incorporated the South African Commerce and Manufacturers' Record).
South African Mining Review.
South African Mining and Engineering Journal.
South African Motorist.
The South African Builder.
The Architect, Builder, and Engineer.
The African Chemist and Druggist.
South African Stationery and Trades Journal.
South African Printer and Stationer.
Chambers of Commerce Journals (Cape Town, Johannesburg, and Pretoria(.
South African Railways and Harbours Magazine.
Standard Bank of South Africa—Monthly Review.
South African Banking Magazine.
Insurance, Banking, and Finance.
Dunn's Gazette.
Licensed Victualler's Gazette.
Cotton News Weekly.
The South African Cotton Growers' Journal.
The Social and Industrial Review (*Official, Department of Labour*).

Miscellaneous Reports—

Crops and Markets—Department of Agriculture (*Official*).
Agricultural Societies.
H.M. Trade Commissioner for South Africa.
Chambers of Commerce.
Transvaal Chamber of Mines.
Monthly Report on Trade of British South Africa (*Department of Customs and Excise*).
Annual Report on Trade and Shipping (*Department of Customs and Excise*).
Monthly Report on Mining Statistics (*Department of Mines and Industries*).
South African Railways and Harbours Bulletin (*Official*).
Annual Government Department Reports (*Official*).
Annual Report of Secretary for Mines and Industries and Government Mining Engineer (*Official*).

(c) *Labour Questions—*

Periodicals—

Amalgamated Society of Wood Workers—Monthly Report.
South African Master Builders' Federation Journal.
South African Typographical Journal.

(d) *Libraries, Museums, Learned Societies, etc.—*

Annual Reports of Libraries.
Annals of the South African Museum.
Annals of the Transvaal, Natal and other Museums.
Royal Observatory—Publications.
Union Observatory—Circulars.
South African Journal of Science.
Journals of the South African National Union (1908–11).
Medical Journal of South Africa.
South African Medical Record.
The South African Institute for Medical Research—Publications.
Tydskrif vir Wetenskap en Kuns.
Geological Society of South Africa—Transactions.
Chemical, Metallurgical, and Mining Society of South Africa.
South African Institute of Electrical Engineers—Transactions and Journal.
Journal of the South African Institute of Engineers.
Engineering in South Africa.
Journal of the Institute of Land Surveyors of Transvaal.
South African Law Journal.
Journal of the Institute of Bankers.
Child Welfare Association—Report.
Proceedings of the Economic Society of South Africa.

* Ceased publication with the December, 1925, issue.

(e) *General—*

Juta's Daily Reporter (Law Courts).
Monthly Summary of Decided Cases in the Supreme Court of South Africa (*Official*).
Manual of Criminal Procedure (*Official*).
Manual for Justices of the Peace (*Official*).
Mayors' Minutes and Municipal Year Books.
Valuation Rolls.
Municipal By-Laws.

3. **General Works.**—Previous issues of this Year Book contained detailed lists of the more important general works that have been published in connexion with South Africa up to the year 1923. Books which have appeared since that date are mentioned in the subjoined list, under appropriate headings:—

Biography—

Engelenburg (Dr. F. V.)—'n Onbekende Kruger; Pretoria: 1925.
Gerdener (Dr. G. B. A.)—Sarel Celliers; Pretoria: 1925.
Kestell (Dr. J. D.)—Christiaan de Wet; Kaapstad.
Lombard (J. P. la Grange)—Paul Kruger, die Volksman; Pretoria: 1925.
Malan (F. S.)—Marie Koopmans de Wet; Kaapstad: 1924.
Stent (Vere)—Some Incidents in the Life of Cecil Rhodes.
Van der Merwe (N. J.)—Marthinus Theunis Steyn; Kaapstad: 1924.
Walker (Prof. E. A.)—Lord de Villiers and His Times; London; 1925.

Economics—

De Kock (Dr. M. H.)—Selected Subjects in the Economic History of South Africa; Cape Town: 1924.
Lamont (A. B.)—Economic Geography of South Africa.
Vissering (Dr. G.)—Report on Gold Standard; Government Printer, Pretoria.
Bruwer (Dr. A. J.)—Protection in South Africa; Cape Town.

History and Description—

Brookes (Dr. E. H.)—The History of Native Policy in South Africa from 1830 to the present day; Cape Town: 1924.
Collins (Jas. A.)—The Struggles of an Infant State.
Engelbrecht (Dr. S. P.)—Geschiedenis van de Ned. Hervormde Kerk in Z.A.; Pretoria: 1925.
Engelbrecht (Dr. S. P.)—Paul Kruger's Amptelike Briewe, 1851–1877; Pretoria: 1925.
Fairbridge (Dorothea)—Lady Anne Barnard at the Cape of Good Hope.
Lugtenburg (Dr. A. H.)—Geskiedenis van die Onderwys in die S.A. Republiek, 1856–1900; Pretoria: 1925.
Malherbe (E. G.)—Education in South Africa, 1652-1922; Cape Town: 1925.
Preller (Gust. S.)—Volksraad Notule, Natal, 1839–1845; Pretoria: 1924.
Preller (Gust. S.)—Historiese Opstelle; Pretoria: 1925.
Spoelstra (B.)—Ons Volkslewe; Pretoria: 1922.

Natural Science—

Bews (Dr. J. W.)—Plant Forms and Their Evolution in South Africa.
Haagner (Alwin)—South African Mammals; London: 1920.

General—

Boshoff (Dr. S. P. E.)—Volk en Taal van Suid Afrika; Pretoria.
Brummer (Prof. N. J.)—South African Citizenship.
Kuyper (Dr. H. H.)—Zuid Afrika, Amsterdam: 1925.
Mentzel (O. F.)—Description of the Cape; (Van Riebeek Society).

CHAPTER I.

HISTORY AND DESCRIPTION.

§ 1. Discovery, Colonization, and Development of South Africa.

PREVIOUS issues of this *Year Book* (Nos. 1 to 7) contained a brief history of South Africa from the time of its discovery in 1487, its occupation by the Dutch in 1652, and its subsequent colonization to the establishment of the political Union in 1910. The section has not been repeated owing to considerations of space, but the course of events during that period and in more recent years is summarized in Chapter XXVIII. The story of the early expansion of the Cape Colony and the migration of the farming community into the interior is briefly told in § 2 below.

For other phases of South African history reference may also be made to Chapter II.

§ 2. The Early Expansion of the Cape Colony, with Special Reference to the Migration of the Farming Community.*

1. **Early Agriculturalists.**—When the authorities of the Dutch East India Company raised their standard on the shores of Table Bay in 1652, little did they think that South Africa would become what it is to-day. They were representatives of a mighty chartered company which was out for trade and trade only. Colonization, as we understand it, was not part of their programme. Yet, in the course of time, there sprang up a flourishing agricultural colony which completely altered the initial purpose. The chief factor which determined the establishment of a refreshment station in 1652 was economic.

At first the Dutch East India Company supplied its shipping and garrison with victuals obtained by its own activities, but towards the end of the seventeenth century this was taken over by the farming population, which had at this time become an important factor in the development of the country. The first farmers were those Company's servants who were given their discharge and granted land along the Liesbeek. They were the nucleus of that band of pioneers who, during the first decade of the eighteenth century, began to push their way into the interior of the Cape Colony.

Before the close of the seventeenth century, efforts were made from time to time to induce persons to come out from Europe and settle here, and an important accession to the population was the arrival of the French Refugees in 1688. Immigration was stopped after the first decade of the eighteenth century, and the increase of the population depended solely upon the natural increase, many of the sons taking up farming in preference to joining the service of the Company. The number of Company's servants who received their discharge and preferred to remain here helped also to swell the ranks of the colonists. The farmers formed a very large percentage of the population. Up to the first decade of the eighteenth century we may look upon the period as one of settlement which was followed by a period of dispersion. There were several reasons which accentuated this latter movement.

2. **Migration of Farmers.**—However hard the authorities endeavoured to prevent an expansion of the Colony by the community going inland, the attempts were almost fruitless. Despite laws and a wish to have the people near to headquarters, so as to keep an eye on them and use them for military purposes in case of need, the migration went on; the people *trekked* onwards and the Government followed.

The way for the advance of the farmers during the eighteenth century had, to some extent, been prepared by the explorers of the seventeenth century. These men had been sent out by the Company for the purpose of opening up a trade with the natives, ascertaining the potentialities of the country, and gaining geographical knowledge. The reasons were, on the whole, purely economic. Their direction was guided also by the same reasons, and the physical features of the country helped greatly to determine this as well. The early

* Contributed by C. Graham Botha, Chief Archivist of the Union.

explorers went first to the north-east and then south-east, keeping on the coast side of the mountain barriers. The farmers followed largely the same routes, keeping close to places where they could find pasturage and water for their cattle.

There were three types of farmers in the Colony during the eighteenth century : the wine farmers, the corn farmers, and the stock farmers. The first two lived in the more settled area of the Colony, part of the Western Province, as their industry would naturally demand. The last type, who raised cattle and sheep, frequently moved from place to place, so as to have water and pasturage for their stock. They formed a large proportion of the inland European population. The wine and the corn farmers held their land mostly on freehold tenure, while the stock farmers held theirs on lease or " loan." It was this last kind of land tenure which contributed greatly to the expansion of the farmers inland. The ground was obtained by merely settling on it and obtaining a permit from the Government allowing the farmer to remain there for pasturing his stock. This permission had to be renewed annually, and was seldom refused. When the ground became barren, the farmer simply moved farther afield, chose another spot and applied for a new lease. Such a farm was known as a " loan place," and most of the farms in the interior were held on this form of tenure. Sometimes a stock farmer held several farms in this manner and all lived a more or less nomadic life.

The first lines of expansion can be easily traced along the river-courses and the seaward side of the mountains. When the first pioneers had crossed the mountain barriers over the steep and dangerous passes, others soon followed. By the year 1730, farms were occupied as far as the present district of Clanwilliam in the north-west and Mossel Bay in the south-east. Between this date and 1750, the farmers had crossed the mountains parallel to the west coast and began to spread out in the present districts of Ceres and Calvinia. One group got as far as Namaqualand. In the forties, the Roggeveld began to be populated, and gradually Sutherland and Fraserburg districts were occupied. While the Bokkeveld and Roggeveld were gradually being settled, the line beyond George, after 1730, was not so pronounced. In 1756 a commencement was made across the mountains towards the Zwartberg into what is now Prince Albert. This line then pushed eastward on to Willowmore and Aberdeen, and met the route followed along the southern part converging towards what is now Graaff-Reinet.

In addition to the two lines which were progressing to the north-west and east respectively, a third one was being carried on through the Karroo. Here the farmers were not so ready to seek places. By the middle of the century they had advanced past the southern parts of the Klein Roggeveld up towards the Nieuwveld. In 1760, the present site of Beaufort West was occupied, and a few years later the area known as the Gouph. This line began to bend towards Graaff-Reinet. Others spread out over what is now the Eastern Province, as far as the western bank of the Fish River. It was about 1770 that Graaff-Reinet became occupied by the stock farmer.

In addition to the easy method of obtaining a " loan place," which contributed to this expansion, there was also another factor. Restrictive trade measures were placed upon the farmers by the Company, and as there were no overseas markets, the prices of agricultural produce fell considerably. This was one of several causes which made the farmers go inland.

3. **References.**—C. Graham Botha, " The Dispersion of the Stock Farmer in the Cape Colony in the Eighteenth Century." *S.A. Journal of Science*, XX, pp. 574–580.

C. Graham Botha, " Early Cape Land Tenure." *S.A. Law Journal*, 1919.

" Wildschut or Ordonnantie Boek," Cape Archives.

" Report on the Cape, 1802," by Commissioner-General De Mist. Published by the Van Riebeek Society from a copy in the Cape Archives.

§ 3. Colonial Dutch Architecture.*

Far removed from the attractions of modern ingenuity, patent " short cuts," and the like, are the sober and eminently common-sense buildings of the early settlers in the Western Province. In their endeavour to achieve the best that the primitive conditions permitted, and with their simple straightforwardness, although a trifle rough and ready, they command our interest and respect.

When the early pioneers sought to build, they naturally reproduced, as well as they were able, the forms of buildings with which they were familiar in Holland and the Netherlands. They were, however, confronted by the difficulties of a new and uncivilized country, where their choice of materials was strictly limited and nearly all the materials were in a raw state. Their difficulties were further aggravated by the fact that very few of them could have been skilled in the arts of building, and the local conditions dictated a good many

*Contributed by F. K. Kendall, F.R.I.B.A.

modifications, which continually threw them back on their own resources. The brick-work in Holland, being probably better than, or at least as good as, that to be found anywhere in the world, and the partiality therefor being highly developed in the minds of the artificers, very skilful and beautiful brick-work with divers variations in all sorts of details—moulded brick-work with bands of stone introduced, cuspings, sunk or raised panelling, mouldings, pilasters, etc.—became regular features.

The settlers had to make their bricks as best they could, and, largely through their inexperience, these were of an inferior kind. It must soon have become evident to them that the bricks were not sufficiently hard to withstand the fierce driving rains of this country, so that an additional protection was called for and forthcoming in the form of a plaster face. As lime of passable quality was generally available, this type of facing offered no great difficulty; on the contrary, it formed rather a welcome means of covering up the irregular and often inferior brick-work. A coat of whitewash, which could easily be renewed, gave a pleasing effect to the rough and ready structure; and as this was typical and expressive of the conditions prevailing, we cannot find fault with it on that account.

As regards roofing material, the settlers must again have been hard put to it to find a substitute for the fine, well-burnt, warm-coloured tiling of their native land. They were unable to produce tiles in anything like sufficient quantity under the new conditions, but, fortunately, the reeds which grow in profusion around the vleis and marshes were well adapted for thatch, and this rough and ready material harmonized extraordinarily well with the plain, whitewashed walls, and set a new and distinctive stamp upon the style of architecture which the settlers were endeavouring to develop. The warm, clear sunshine of this new land and the blue shadows of trees on the white plaster went a long way to enhance the simple beauties of this new expedient.

The details of the buildings generally followed their prototypes of the Netherlands fairly accurately, often being reproduced without any more substantial reason than mere tradition. For instance, the "flat treatment" and the use of shutters were evidently retained because the people were used to them and regarded them as the right thing. By the "flat treatment" is meant the system of placing doors and windows approximately flush with the outside face of the external walls, so that, when looked at from the outside, there are no deep "reveals" to give an appearance of thickness to the walls or to cast shadows, and provide interest and variety. In a sunny climate such as this, it would have been more rational to place the doors and windows flush with the inside of the walls, or, at all events, some way back from the outside face so as to shelter the glass from the blazing sun, and make it easier to construct weather-tight joints around the frames. But the settlers evidently preferred their tradition, and it is interesting to note that this construction had its origin in the Netherlands. The fact of the matter was that the marshy nature of the ground prevalent in Holland was the parent of this treatment, and it will readily be understood that a heavy wall requires more ample foundations in marshy soil than upon firm, solid ground. It, therefore, became very necessary to make the walls as light as possible, and "one-brick" walls (9 in. thick) were therefore customarily used. As the door and window frames were large and massive, frequently 6 in. thick, it was obviously impossible to fit them into walls of about 9 in. thickness without their appearing to be flush or nearly flush on the outside face. This arrangement was accepted and developed with a number of charming varieties by the Dutch people, who frequently introduced relieving arches and other designs with slightly sunk faces generally only $1\frac{1}{2}$ in. or so in depth, and this wholesale avoidance of deep recesses of any kind constitutes what may be called the "flat treatment."

Then as regards shutters, although many people have argued that these were introduced to exclude the sunlight from the rooms, this can immediately be disproved by the fact that the shutters filled with solid panels were attached only to the lower half of the sashes. If these had been intended to exclude the sunlight, they would have been fitted over the whole of the window; or, if half only were preferred, it would naturally have been the top and not the lower half that would have been shuttered. It has also been maintained that the shutters were for protection from thieves. While there is probably something in this contention, the fact remains that shutters were common, if not universal, in the old domestic buildings of Holland, and were fixed as often to the windows of the upper as to those of the ground floors. It seems thus most rational to regard the use of shutters in this country as a survival of tradition more than anything else.

The arrangements of the sash windows, though admittedly good to look upon, is far from satisfactory from the modern hygienic point of view, since the top sash was never made to open. As the rooms were generally from 12 ft. to 14 ft., or even more, in height, it follows that the upper half of the rooms was never adequately ventilated. The custom of opening the windows during the cool hours, and closing them and the shutters directly the sun rose, was soon established. The cool air thus enclosed in the rooms must generally have become rather vitiated; but it is presumed that the amount of fresh air the occupants got in the open was sufficient to fortify them against these rather unhealthy conditions.

Apart from the "flat treatment," the prominent use of gables is another and very dominating characteristic of the Dutch style. These are varied in design and, generally speaking, are extremely attractive. It is interesting to notice how the craftsman often

adapted his design to the material in which he worked. Mouldings, enrichments, and other decorations which adorn the gables, directly inspired by prototypes in stone or brick work, are now translated into plaster, and the projections and sections of the mouldings frequently partake of a rather free and plastic treatment such as the new material dictates.

In classifying gables, it is simplest to divide them under two headings, viz., "End Gables," and "Gables of the Dormer Type." The former are merely those which terminate main roofs; these may be sub-divided again into several different kinds according to their outline—the straight, the crow-stepped, and many varieties of curly gables. It is well to notice also that the marshy ground which we have already considered as modifying the walls was partly responsible for the prevalence of the gable. The ordinary straight frontage of a building was often terminated in one large gable with a steeply pitched roof. While the return walls would only be the height of the eaves (say two stories), the space enclosed within the huge roof would serve to accommodate two or even three additional stories, so that a large proportion of the room space is contrived within the roof, thus minimizing the amount of brick-work required and reducing the total weight of the fabric. With such thin high gable walls some additional stability was required, and the system of bolting the wall to the purlins, or heavy longitudinal beams which supported the rafters of the roof, was resorted to. Characteristic of the Dutch genius for domestic ornament, the bolts which were carried through these gable walls from the ends of the purlins were terminated in extremely pleasing "anchor-ties" of wrought-iron work, which generally were skilfully designed and wrought. The other type of gable was smaller and usually more elaborate. This was derived from the dormer windows which are cut through the roofs, and generally treated in a more or less classical manner—i.e. with some form of classic pediment at the termination, sometimes supported by pilasters far enough apart only to enclose a rather small central window. The vertical angles were then buttressed at each side by some sort of curly "swag" which gave it a more stable and graceful appearance. In this country the "swag" at the side was almost immediately developed laterally so as to add to the width of the gable, thus making it possible for it to cover the end of a sloping roof. The original prototype would most commonly have had the vertical "cheeks" of lead or hung tiling. Evidently this called for materials and workmanship superior to what the early settlers could supply, so it was not attempted. It became customary in this country to place a gable of this type over the main entrance to a house, letting it grow, so to speak, out of the middle of the main roof, and it was quite usual to decorate this gable with various ornaments, consisting usually of some conventional festoon of fruit or flowers or possibly the initials of the owner and date of the building. However, these dates have often been found misleading, since they frequently represented merely the date of some alteration or elaboration of the gable, and not the original construction.

The general plan of the houses was severely simple, and does not appear to follow any known precedent. The typical plan for a house in the country usually aimed at a shape similar to the letter "H"; this provided a long front wing facing the entrance drive, with a back wing of equal length and parallel to it and a connecting link in the centre opposite the main entrance. The three wings were equal in width, so that the roof construction was made as simple as possible, no doubt a very important factor with these early builders. It was customary also for the houses to be only one story in height—again, no doubt, due to the additional skill that would be required to construct high houses. But as ground was cheap and plentiful, it was quite natural that the builders should extend their houses laterally instead of vertically. It is possible that they may have attempted to utilize the roof space for attics, but the difficulties of plumbing in connexion with the necessary dormer windows, and doubtless the difficulties of leakage elsewhere through the thatch, in addition to the fact that the hot sun was apt to render such space uncomfortable, led to the abandonment of any such idea. The roof space was, however, brought into casual use as a loft, which was generally approached by a fixed ladder giving access through an opening in one of the end gables. The fact of the thatch being inflammable, caused a good many fires, so that a protection against this was devised by the introduction of "brand-zolder," a thickness to brick laid in clay above the top of the boarded ceiling. This non-inflammable insulator gave additional coolness to the rooms below, while securing them against destruction from fire in the event of the thatch burning.

§ 4. The Evolution and Recognition of the Afrikaans Language.*

The outstanding fact taught by the historical and comparative study of human speech is that language is never constant but always changing. The language of Iceland may appear very conservative when contrasted with the much-changed English language; and even English itself may seem to be very conservative during the nineteenth century when one observes the enormous changes it underwent during the eleventh century; yet a very elementary study will suffice to convince any one that neither Icelandic nor nineteenth century English has remained unchanged. It is a well-established fact that the child does not speak

*By Johannes J. Smith, Professor of Afrikaans, University of Stellenbosch, and Chief Editor of "Die Afrikaanse Woordeboek."

exactly like its father or mother, and later generations often understand but little of the language spoken by their ancestors a few centuries earlier; the inhabitants of a particular area usually employ a form of speech which at once distinguishes them from people dwelling in other parts of the same country; persons belonging to different social strata or occupations are distinguished from one another, not only by the amount of wealth they possess and by the customs in vogue amongst them, but also by the manner of their speech; and in practically every country there is a difference between the formal written language and the ordinary everyday speech even as used by the cultured and upper classes.

The Dutch South African of to-day, too, no longer speaks like his Netherlandish ancestors of the seventeenth century, nor like his modern kinsmen in Holland, although the great similarity between their two forms of speech is at once obvious to the most casual observer.

In the Netherlands the Dutch of the seventeenth century gradually changed to modern Dutch, while in South Africa it changed to Afrikaans. The changes which transformed seventeenth century Netherlandish into Afrikaans are, however, so striking and so much more radical than those undergone by the Netherlandish language in Europe that the evolution of Afrikaans is rightly regarded as an event of primary importance in the history of the Germanic family of languages—an event as remarkable as the change ot Anglo-Saxon into modern English.

There is, however, another event in connexion with Afrikaans which is of exceptional importance to all persons in any way interested in the study of language, namely, the raising, within an incredibly short time, of the formerly despised and generally condemned Afrikaans dialect to the rank, not only of a written language already possessing a literature of no mean merit, but also of one of the official languages of a modern State which still is and wishes to remain in daily contact with the old culture and traditions of Western Europe.

This essay is an attempt to deal briefly with the most important matters that led to these two events in connexion with the Afrikaans language.

Why Netherlandish changed to Afrikaans in South Africa is a problem which has engaged the attention of philologists for a considerable time. Several theories have been advanced; but it is remarkable that nearly all the earlier investigators ascribed the change to foreign influence. Thus it has been asserted that Afrikaans owes its origin to the influence of the French of the Huguenots, of the language of the Hottentots, of the Creole-Portuguese of the slaves, or of the broken Netherlandish of the French, Hottentots, and slaves.

The French theory was soon rejected. It was altogether too obvious that the 176 French Huguenots who arrived here during the years 1688–1690 could not possibly have caused the change in a language which not only enjoyed all the privileges of an only official language, but which was also in daily use among Netherlanders and Low Germans seven times more numerous than the French. The French language disappeared, leaving hardly a trace. The opinion that was formerly held that *ons* (in place of the Netherlandish *wij*) or the double negative was to be ascribed to the influence of the French Huguenots now seems incorrect, the most probable explanation being that these peculiarities have been inherited from the Netherlandish dialects spoken by the ancestors of the Dutch South Africans, and thereafter generalized in South Africa. *Ons* in place of *wij* is quite common in Zeeland, a province from which a comparatively large number of women came before 1691, while the double *nie* is to-day still found in the dialect of the Jordaan, formerly a peasant village near Amsterdam. Words of undoubted French origin, such as *andoelie, kaskenade, koewertuur, oblietjie, portfesie(deur), punteneurig*, have also been regarded as Huguenot words; but all, these are found in Dutch or in the Netherlandish dialects—sometimes, as in the case of *kaskenade* and *portfesie(deur)*, in exactly the same corrupted forms—a fact which points strongly to one act of borrowing, and not to two. It should be remembered in this connexion that already as early as the twelfth century the Netherlanders were subject to strong French influence, and that such words as *abuis, affère, affodil, akkoord, aspersie, balie, bataljie, bombarie, different, ferweel, frikkedel, kapabel, kasarm, kastrol, latei, subtiel*, and hundreds more, were brought from the Netherlands by the Dutch colonists, and not borrowed here from the few French Huguenots. Most probably only a few fruit names came from the language of the Huguenots—*bermot-sersan(peer), pawee(perske)*, and *sermyn(peer)*; and even these are not entirely free from doubt. There is, however, a large number of family names of Huguenot origin, such as *Cronje, De Villiers, Du Plessis, Du Toit, Fourie, Fouché, Hugo, Le Grange, Le Roux, Malan, Malherbe, Marais, Mouton, Nel, Pienaar, Retief*, etc. A large number of French names of farms is also found in Frenchhoek, Drakenstein, and other parts, e.g. *Champagne, Dauphiné, La Motte, Languedoc, Montpellier*.

Here I also wish briefly to deal with the influence exercised by that other group of Europeans that was incorporated into the Afrikaans population in early times—I refer to the German colonists or, to be more exact, to the Low German colonists from the north-west ot Germany—although a German theory in connexion with the origin of Afrikaans has not actually been formulated by any one. The Germans did not exert a great deal of influence on Afrikaans. To begin with, their language was very closely related to that of the Dutch colonists; moreover, most of them came to South Africa at a comparatively late date, after the nucleus of the people was already here; and, lastly, they married Netherlandish or South African women in almost every case. Although there is quite a number of words, such as

blits, omsons, peits, sens, stewel, uitwiks, verfoes, werskaf, which at first sight look rather more like German words than like the corresponding words in the standard language of the Netherlands, yet a little study of the Dutch language of the seventeenth century or of the dialects of the Netherlands—especially those spoken in the provinces of North Holland, South Holland, Zeeland, and Utrecht, where the vast majority of the early South African colonists came from—will very soon convince us that most of those words are not of German origin. At present German origin seems acceptable in the case of only a few Afrikaans words, namely, *dan en wan, jaarhonderd, laer, by my siks,* and perhaps also *bolmakiesie* and *strawasie.* Of German family names, however, there is a vast number—e.g. *Hauptfleisch, Holtzhausen, Krige, Kruger, Neethling, Von Wielligh, Wiehahn.* It has been calculated that the proportion of German blood in the Afrikaans colonists up to the year 1806 was about 27 per cent., while the French contributed 17, the Dutch fully 50, and other nationalities about 6 per cent. The German element was still quite insignificant in 1691—the year when the children born in this country first exceeded in number the immigrants from elsewhere, and when, accordingly, the nucleus of the new Afrikaans people was already in the country. The Germans, therefore, could not have exercised any great influence on the formation of the Afrikaans people and language.

The influence of the Hottentot language on Afrikaans is evident only in the vocabulary —and that in a very slight degree—and it is remarkable that the words borrowed are, with one or two exceptions, nouns—chiefly names of plants and animals. The following words of Hottentot origin are fairly generally known : *abba, arrie !, boegoe, dagga, gang !, ganna, kamma, karos, kierie, koedoe, kwagga, oorbietjie.* Probably also of Hottentot origin are the interjections *eina !, sie !,* and *soe !.* The following words are also Hottentot, but they only occur in certain parts of the country and are not generally known : *abiekwa(boom), arrie* (edible plant), *baroe, dwa* or *twa* (kind of grass), *ghaap, ghnarra(bos), ghoe(boontjie), ghoena, ghoukom, ghwarrie(boom), gora* or *gorê, kaam(bessie), kambro, karree(boom), karie(moer), karkoer, koekmakranka, nadroe(jakhals), namakwa(duif), noemetjie* (buck), *noem-noem(bessie), orra(bok), samma, sonkwas(riet).* In addition, there is a number of Hottentot geographical names such as *Aughrabies, Gamka, Garies, Ghoup, Goudini, Gourits, Kakamas, Kamdebo-(berge), Kamies(berge), Karo, Keimoes, Keiskamma, O'okiep, Prieska,* and others.

The colonists had very little intimate dealings with the Bushmen, and apparently nothing has been directly borrowed from their language.

It was only during the second half of the eighteenth century that a portion of the European inhabitants came in contact with the Bantus ; and a very large proportion of the Afrikaans-speaking population of to-day is still free from all Bantu influence. The result is that only a few Bantu words known from books and periodicals are at all generally understood—e.g. *iempie, indoena, mamba, tsetse.* The following are known only in certain parts : *amaas, dagha, dongha, dwala* or *toeala, ghoeboe(mielies), gramadoelas, imbongo, impala, indaba, kaboe(mielies), letieng, lobóla, magêo, mahem, mahôbe, majóba, makketaan, maranka, maroela, moepel, mopanie, na(boom), okapie, palla, pitso, poekoe, siebieba, sjêba, tamboekie(gras), tambotie(hout), tekwaan, tjabóntjie, tjaile, tollie.* Besides these, there are also numbers of Bantu proper names, such as *Amatólas, Congella, Indwe, Koeroeman, Majoeba, Maseroe, Oemsimwoeboe, Oemtata, Thabantsjoe, Toeghêla.*

But it is especially the corrupt Portuguese of the slaves that has been adduced by philologists as the principal cause of the transformation of Netherlandish into Afrikaans. This corrupt Portuguese was introduced into South Africa with the slaves from the East Indies and the African coast ; to a less extent it was also used as a means of intercourse between Europeans of different nationalities meeting in the harbour of Cape Town. It was the language originally learned from Portuguese traders in the different parts visited by them, and already by the year 1700 it had become so corrupted and simplified that it retained but little of the European Portuguese system of inflections. It differed in different regions, and it was obviously not uniform at the Cape either, for here were slaves from Angola, Mozambique, the Indian coast, Ceylon, and the islands of the Malay Archipelago. Seeing that a large number of slaves came from the Malay Archipelago, the Portuguese *lingua franca* is generally referred to as Malay-Portuguese, although Creole-Portuguese would be a much more correct name for the corrupt Portuguese formerly spoken chiefly by the slave population at the Cape.

Here again it is only in the Afrikaans vocabulary that the influence of this Creole-Portuguese can be proved beyond any doubt. The number of Afrikaans words from this source amounts to about a hundred, although the vast majority of these need not have been borrowed directly by Afrikaans, since they also occur in Netherlandish or Indo-Netherlandish—often long before the founding of the Cape. Such words are : *aia, akkerwanie, albertkoord, asgaai, atjar, baadjie, baar, baklei, bamboes, blatjang, bobotie, borrie* (" curcuma "), *doepa, flamink, goiing, gorlet(kom* or *-beker), hadjie, jamboes, josie, kaaiman, kabaai, kakketoa, kakkerlak, kaladie(blaar), kaliefa, kaparrings, kapater, kapok, karet(kam), katel, katjang-(boontjies), katjangghorries* (" monkey-nuts "), *katjiepiering, katjiepoet(olie), kiaat(hout), kipersol(boom), klapper, koelie, kraal, (oor)krabbetjie, kramat, kris, kuspidoor, laksel* (" vermicelli "), *lemmetjie, likkewaan, loerie, mandoor, mebos, mielie, nonna* and *nonnie, nooi, orang-oetang, pagaai, pangeran* (kind of fish), *papegaai, pienang, piering, piesang, pikkewyn, poewassa,*

pondok, rissies, rotting, sago, sambal, sambok, sambreel, sammejoa, saranie, seroet, soebat, soetemaling, sosatie, stramboel, tjap, tjoema, toering, tronk. If, in discussing these words, we remember that the Netherlanders had traded directly with the East Indies for fifty years before the founding of the Cape settlement, and that they had already traded with Lisbon a century before that, then it seems highly probable that we have to do with only one borrowing in the case of all Portuguese, Creole-Portuguese, or Malay words which occur in the same or about the same form both in Afrikaans, Netherlandish, or Indo-Netherlandish. The same methods of investigation should be applied to these borrowings as to the possible French words in Afrikaans, and it seems to me very illogical to class, as some philologists have done, *kipersol* or *oorlam* as words directly borrowed by Afrikaans, while they would never dream of accepting *kaskenade* and *portfesie*(*deur*) as evidence of French influence.

The following words of Creole-Portuguese origin have not yet, as far as I know, been found in Netherlandish or Indo-Netherlandish, and it is possible that they were directly borrowed by Afrikaans from the language of the slaves: *bredie, kurang, koffea, laai, moesoek, paljas, pamperlang, ramkie, ramsammie* ("snake charmer"), *sampiet* ("sucking tube"), *sieal, tamaai, tassal, tjommel.* Most of these words, however, are not generally known.

Several attempts have been made to find traces of Creole-Portuguese influence in the sound system and syntax of Afrikaans; but practically all such attempts must be regarded as having signally failed, other and better explanations being possible in most cases. In such attempts, as a rule, the stages of development already reached by the Netherlandish dialects from which Afrikaans sprang are not sufficiently kept in view, and usually, also, too little importance is attached to exactly parallel developments in other Germanic languages.

The Creole-Portuguese theory regarding the transformation of Netherlandish into Afrikaans is by no means proved by the slight traces of influence that are found almost exclusively in the vocabulary, and it also becomes most improbable when one bears in mind that the slaves stood much lower in the social scale than their masters. It is quite contrary to all experience for a master to allow his own language to be corrupted under the influence of the speech of his underlings. We know that the colonists from the earliest times looked down upon the slaves as a low class of people; and we also know that the number of slaves barely exceeded that of the white population as late as the year 1754. The number of female slaves, especially, was very small, and in 1691—when the number of whites born in South Africa first exceeded the number of immigrants from abroad—the free burghers, then about 1,000 in number, possessed only 230 male slaves, 44 female slaves, and 36 slave children.

Another improbable theory is that the Netherlandish of the first colonists degenerated under the influence of the broken Netherlandish used by the great number of strangers—French, Germans, Hottentots, and slaves—who were forced by circumstances to adopt the official language of the new colony. We know that the Low German ancestors of the Dutch South Africans did not arrive in large numbers till after 1691, and that the French comprised only one-eighth of the population; it is therefore evident that the influence of these two races on the language of the colony must have been comparatively insignificant.

That the Netherlandish of slaves and Hottentots could be responsible for the change in the grammatical structure of Afrikaans seems equally little warranted either by the social relations between the two races in the past or by the existing form of Afrikaans. The Netherlandish spoken by slaves and Hottentots would be Creole-Netherlandish; but such characteristic Creole peculiarities as the rejection of the inverted order of words (e.g. "*Môre ek gaan weg,*" instead of "*Môre gaan ek weg*"), the simplification of groups of consonants at the beginning of words (e.g. *setoeloe* in place of *stoel*), the placing of the negative before the finite verb (e.g. "*Ek nie weet*" instead of "*Ek weet nie*") are not found in the Afrikaans of the white people.

In my opinion, the theory best supported by the facts both of language and of history is the so-called spontaneous one—i.e. the theory that holds that present-day Afrikaans is a direct, unbroken development of the Netherlandish of the seventeenth century colonists. The term "spontaneous development" by no means precludes the possibility of all kinds of influences having been exerted directly upon the language; and the supporters of this theory do not wish in any way to deny that there is a certain number of Portuguese, Creole-Portuguese, or Malay words in Afrikaans. But all such influences are secondary matters and not deciding factors in the change. The spontaneous theory also differs most signally from all theories postulating a clash of languages—theories which maintain that Netherlandish clashed, as it were, with a dissimilar language as a result of the Netherlandish colonists having been suddenly forced to speak that other language. Spontaneous development means that the language grew out of itself, more slowly or more rapidly, according as the conservative influences were stronger or weaker. A seed growing into a tree is an example of spontaneous development, although all sorts of outside influences such as sunshine, water, soil, manure, pruning, and environment may help to further or retard its growth; if, however, the tree should be cut down and a strange shoot grafted upon it, this would no longer be spontaneous development.

Clash of languages is indeed one of the chief causes of sudden change in language, but it is not the only cause. Changes in the life and habits of the people speaking the language,

isolation from the controlling influence of cognate languages or dialects, and especially the absence of conserving influences such as those exerted by churches, schools, literary or influential classes, books and periodicals, promote sudden changes in language. In other words, we find the general causes of change in a language in the social condition of its speakers. A conservative race living in a conservative environment does not as a rule indulge in great linguistic changes.

The Dutch colonists of South Africa lived under very unconservative conditions. It was an entirely new kind of country, with new occupations and new duties. The farming population moved inland at an early date and gradually became quite isolated from the Netherlands—in fact, even from Cape Town. There was no postal communication, nor were there good roads till late in the nineteenth century, and for most people born here a visit to Cape Town was a memorable experience. Conserving influences were few indeed. Most of the colonists read nothing but the Dutch Bible in the translation authorized by the States General, and a few other religious books. Before 1750 there were only four churches and a few schools in the country districts, and the farm children of the seventeenth and eighteenth centuries learnt little besides reading, writing, and the answers to the catechism. Nor should it be forgotten that there was no continuous stream of fresh immigrants to the Cape who could help to foster the language and culture of the home country. As early as 1691 we find the number of children born in the country greater than the number of immigrants, and after the arrival of the French Huguenots in 1688–1690 there was practically no more direct immigration. The real European nucleus of the Afrikaans people was therefore in the country before 1691—a mere handful of a thousand people amongst surroundings strikingly unlike those of the Netherlands, not only as regards the country and its occupations, but also as regards its very society with its French and German aliens and its slaves and Hottentots.

The language change effected in South Africa forms an interesting parallel to the development of Anglo-Saxon to the English of the beginning of the twelfth century—and the causes were also much the same in both cases. It is interesting to note that also in the case of English a clash of languages was postulated by the first investigators in order to explain the tremendous changes in that language; to-day, however, no philologist believes that the influence of Norman French was primarily and directly responsible for the change.

The German soldier and "houtsnarijver," Otto Frederik Mentzel, who was at the Cape during the period 1733–1741, already tells us that the speech of the South African farmers was as little pure Dutch as the speech of the German peasants was pure German. From this, as well as from other evidence, we conclude that the inhabitants of Cape Town spoke "pure Dutch" for a much longer period than did the farmers in the country districts. These latter were the real forefathers of the South African Dutch nation, and since the time of Adam Tas (early eighteenth century) they became more and more estranged from Cape Town with its official element and its rapidly changing population. But whether the rustic dialect mentioned by Mentzel was still an unaltered Dutch peasant dialect, differing but little from the numerous dialects of the mother country, or whether it was already some form of Afrikaans, cannot be determined with certainty. Mentzel unfortunately gives us no particulars except that the country women say *ons* with a full mouth instead of *wij*. A few documents, however, dating from the second half of the eighteenth century and written in a marked Africanized Netherlandish—e.g. the journal of Hendrik Jacob Wikar (1775–1779), the "Lied ter Eere van de Zwellendamse en Diverse andere Helden, by die Bloedige Actie aan Muisenberg in dato 7 Augustus 1795," and several old letters that have been preserved—furnish strong support to the view that the Dutch language brought with them by the first colonists had developed into Afrikaans soon after 1750. From the evidence of Heinrich Lichtenstein, who was here during the time of Janssens, and of William Burchell, who travelled in the country in 1810 and subsequent years, it is clear that Afrikaans was a distinct form of speech by the beginning of the nineteenth century.

Writings composed in comparatively pure Afrikaans are, however, very rare before 1860, for up to that date, and also for many years afterwards, nearly everybody was still making use of Netherlandish, though this Netherlandish was often very faulty and much more like Afrikaans than like proper Netherlandish. But from such Africanized Netherlandish writings (e.g. the journal of Louis Trigardt, 1836–1838), from Dr. Changuion's "Proeve van Kaapsch Taaleigen" (published at the end of his Dutch grammar, "De Nederduitsche Taal in Zuid Afrika hersteld," 1844), and from one or two rhymes like "Kaatjie Kekkelbek" (published in *Sam Sly's Journal*, 1846), it is possible to get some idea of the spoken Afrikaans of the first half of the nineteenth century.

After the Cape had become an English possession, the language of the old colonists was gradually pushed into the background, until it was prohibited in official documents in 1825 and in courts of law in 1828. The Responsible Government Ordinance of 1852 provided only for the use of English in Parliament. The schools, too, were gradually being Anglicized; English and Scotch teachers and ministers of religion were imported with the avowed object of spreading the English language among the farming population; and in 1865 English became the sole medium of instruction in Government schools. After 1850 the supremacy of English appeared an accomplished fact to most people. It was the medium of instruction

in the schools, practically the only language used by the Government at the Cape, and it even gained ground in the pulpits of the Dutch Reformed churches. Nor was it only in the English colony of the Cape that the English language was extending its sway; in the Free State and the Transvaal trade and commerce and the public Press of the towns were contributing their share to Anglicize the community; afterwards the influx of foreign miners still further strengthened English influence in the north; and not only Cape newspapers like *De Zuid Afrikaan* and *Het Volksblad*, but also Free State and Transvaal papers like *De Vriend*, *De Transvaal Argus*, and *De Volkstem*, published leading articles in English and Netherlandish, while they also contained other English articles as well as a short English summary of the Netherlandish portion.

At this time there prevailed a great deal of pessimism regarding the continued existence of the language of the old colonists, and the English Press made determined attacks on the rights of Netherlandish as a written instrument, while they branded the Afrikaans spoken language as an unserviceable and useless "jargon," that had so far fallen away from real Netherlandish that it no longer justified the use of Netherlandish as an official language. The aggressive attitude of the English Press and the gradual growth of pro-English sentiment in church and school roused the antipathy of a small minority of patriotic men, and even in the fifties there were voices pleading not only for Netherlandish, but also for "the pure and melodious, albeit grammatically irregular, form of that language which is spoken in South Africa" (*Het Volksblad* of 13th May, 1858).

The greatest stimulus that Afrikaans received in those early days did not, however, come from Dutch South Africans consciously striving to foster their language, but from the then magistrate of Cradock, Louis Henry Meurant ("Klaas Waarzegger"), although it was by no means his intention to promote the establishment of a written Afrikaans language. He was pleading for the political separation of the Eastern Province; and in order to convince the Dutch farmers of the eastern districts of the desirability of separation, he began in 1860 anonymously to publish his "Zamenspraak tusschen Klaas Waarzegger en Jan Twijfelaar over het onderwerp van Afscheiding" in the *Cradock News*. Shortly after, in 1861, this "Zamenspraak" appeared as a pamphlet of seventy-five pages, and the public read it with avidity. The Afrikaans of this pamphlet still shows Netherlandish influence, especially in the spelling, but the language is without doubt Afrikaans. The example of "Klaas Waarzegger" was highly infectious, and from that date the newspapers show a steadily increasing amount of correspondence in "Boere-Hollands." Between 1861 and 1872 we find numbers of letters as well as some dialogues, rhymes, and other contributions in Afrikaans—especially in *Het Volksblad* (Cape Town), but also in *De Zuid Afrikaan* (Cape Town), *De Transvaal Argus* (Potchefstroom), *De Tijd* (Bloemfontein), and other newspapers. And it was by no means merely rhymes and jokes that appeared in the vernacular at this time; also serious subjects like education, politics, church services, and agriculture were discussed in this form of speech. The Afrikaans of such contributions is mostly inconsistent and impure—as one would naturally expect in those days prior to any regulation of the spelling; nevertheless, it is plain that the new form of language was gradually gaining more adherents, though it also called forth strong adverse comment.

The first volume of real Afrikaans poetry seems also to have appeared in the year 1861. There is a short review of this volume in *Het Volksblad* of 2nd November, 1861; but as yet I have not been able to learn of the existence of a single copy.

Amongst those early writers it was particularly "Behrend Moddermannetje" in *De Transvaal Argus* (Potchefstroom) of 1866–1869, "Trijna Snaaks" in *De Tijd* (Bloemfontein) of 1867–1868, and "Samuel Zwaartman" in *Het Volksblad* (Cape Town) of 1870 and later years, who supplied the reading public with Afrikaans contributions. Especially noteworthy was the influence exerted by "Samuel Zwaartman," of Fraserburg, who wrote a number of "Boerebriewe," in which he supplied local news, and his "Kaapsche Schetsen," in which he discussed serious subjects in connexion with the government of the country, the law courts, and education. "Since Samuel commenced writing in your paper, everybody is reading it," wrote a correspondent to the editor of *Het Volksblad* in June, 1870.

The year 1870 is most important for yet another reason. In July of that year F. W. Reitz published his "Klaas Gezwint en sy Paert" in *Het Volksblad*, followed shortly afterwards by "Die Steweltjies van Sannie" and other poems by President Reitz or by his father. These poems were taken over by most of the newspapers of that time, and everywhere they were received with marked approval. "Die Steweltjies van Sannie" was recited "with much taste" (*met veel smaak*) by the Attorney-General of the Transvaal at a literary gathering in June, 1874.

In September, 1872, a movement was started with the avowed object of using Afrikaans as a written language. It began with a letter in *De Zuid Afrikaan* by Arnoldus Pannevis, a Netherlander who was then teaching at the Paarl Gymnasium. In this letter Pannevis pleaded for the translation of the Bible into Afrikaans with a view to the religious instruction of the coloured people. An extensive correspondence on the subject followed, and soon people were pleading not only for Afrikaans as Bible language for the coloured population, but also for Afrikaans as Bible and written language for Dutch-speaking Europeans.

Pannevis was strongly supported by another Netherlander, C. P. Hoogenhout, a teacher at Bovlei, Wellington, who wrote under the *nom de plume* of " Klaas Waarzegger, Jr." In 1873 he published " Die Geskiedenis van Josef voor Afrikaanse Kinders en Huissouwens " in Afrikaans and also started an important series of " Afrikaanse Gesprekke " in *De Zuid Afrikaan*, in which subjects touching the nationality, religion, and language of the Dutch South African were dealt with in a most searching manner.

In July, 1874, the Rev. S. J. du Toit (" Ware Afrikaander ") appeared upon the scene and began to publish, in *De Zuid Afrikaan*, a series of Netherlandish articles, in one of which he advocated the recognition of an Afrikaans written language. In May of the following year, Dr. Brill, rector of the Grey College, Bloemfontein, delivered a powerful speech, in which he pleaded for the proper appreciation of the language of the country.

The correspondence in *De Zuid Afrikaan* was the immediate cause of the meeting and collaboration of the Rev. S. J. du Toit and Mr. Hoogenhout. The result was the founding of the " Genootskap van Regte Afrikaners " at Paarl on 14th August, 1875—a society having for its object the raising of spoken Afrikaans to the rank of a written language. The " Genootskap " began with eight members, and was never a large or wealthy body ; but its members were enthusiastic men with the courage of their convictions, ready to sacrifice fame and preferment on behalf of their ideals. From 1876 onwards they published *Die Patriot*, first as a monthly and later as a weekly paper. Until about 1890 the " Genootskap van Regte Afrikaners " continued to organize and lead the Afrikaans movement and by means of its widely read newspaper and its numerous publications it achieved a great deal, besides creating a desire for reading amongst the masses of the Afrikaans people. After 1890 no more meetings of the " Genootskap " took place ; the financial responsibility for its publications had already in 1878 passed over to the firm of D. F. du Toit, Paarl—the firm which until 1905 printed and published, with a few exceptions, everything which appeared in Afrikaans. This firm also continued the publication of *Die Patriot*, and in 1896 it started an Afrikaans monthly, *Ons Klyntji*, as well. Unfortunately, the Rev. S. J. du Toit, who continued to be closely associated with the firm of D. F. du Toit, became more and more the champion of political views of which the majority of his people strongly disapproved. Especially his attitude in connexion with the Jameson Raid and the Anglo-Boer War of 1899–1902 estranged his countrymen from him, and consequently also from the language movement of which he was the recognized leader. His influence declined considerably after the Anglo-Boer War, and the result was that his two periodical publications had to be discontinued, *Die Patriot* in 1904 and *Ons Klyntji* in 1905. During the last few years before 1905 it was principally the " Uitgesogte Gedigte " compiled by President Reitz, the different volumes of " Grappige Stories en ander Versies " by Melt Brink, and the use of Afrikaans by Advocate J. H. H. de Waal in *Ons Land* (Cape Town) that kept the enthusiasm for an Afrikaans written language alive. When the new or Second Afrikaans Language Movement began, the Paarl was no longer the centre of Afrikaans publications, and even the system of spelling drawn up by the Rev. Du Toit with a great degree of thoroughness and consistency was summarily and finally rejected by the new generation.

During the first period of the Afrikaans movement (1872–1900) there appeared—apart from the periodical publications *Die Patriot*, *Die Afrikaanse Almanak*, and *Ons Klyntji*—about one hundred and twenty Afrikaans works. These were mostly very simple in appearance, nor were the contents primarily intended for the learned. A great deal of the prose was clumsy, and in most of the verses more attention was paid to the rhyme than to the subject-matter. And yet the First Afrikaans Movement was by no means barren of results. The people became familiar with the divergent Afrikaans form of language and they learned to read. It was the very simplicity and absence of embellishment in the language that attracted the unschooled readers ; and although Afrikaans had not as yet received any public recognition, its existence was now a fact that had to be reckoned with. Literary critics may well contend that apart from Lion Cachet's " Sewe Duiwels " (1882–1899), Du Toit's " Koningin van Skeba " (1898), and about half a dozen poems, there is not much of artistic value worth mentioning : but that statement is only a half-truth that does not take into consideration the object of those first writings nor the excellent results they produced. The people as a whole, however, still adhered to the Netherlandish written language, and they succeeded in getting that language recognized in Parliament in 1882 and in the courts of justice in 1884. After 1890 it was particularly the " Zuid-Afrikaanse Taalbond " that exerted itself on behalf of Netherlandish.

After the Anglo-Boer War of 1899–1902 great despondency prevailed for some years and many believed that the end of the traditions and spiritual possessions of the Dutch South African people was in sight. In the matter of language, particularly, the position was critical. Officially the written and school language of the Dutch South African was still Netherlandish ; but such rights as it possessed were only on paper, and in practice it received little recognition or encouragement from the authorities. In some directions determined attempts were actually made to ensure the total disappearance of the language of the Dutch South African. It soon became quite obvious that Netherlandish was swiftly

dying out as a written language, while in many quarters the spoken Afrikaans began to show such a startling degree of English influence that people rightly feared its speedy and complete absorption.

Soon, however, voices were heard pleading for the reconstruction of Africanderdom; political parties were organized, national church schools were founded, and well-organized women's unions started work. The language, naturally, also received attention. At first the recognition of a merely simplified Netherlandish written language was thought of, but soon the national leaders began to realize that the Dutch language could only be preserved by the recognition of an Afrikaans written language. From July, 1903, Adv. J. H. H. de Waal pleaded, in his periodical *De Goede Hoop*, for the recognition of Afrikaans, and he exercised a powerful influence through the publication of his historical novel "Johannes van Wyk." In May, 1905, Jan Hendrik Hofmeyr ("Onze Jan") delivered at Stellenbosch an address on the question "Are We in Earnest?" in which he rebuked the prevailing indifference with regard to the mother tongue, declaring the official equality of English and Netherlandish in the Cape Colony to be a mere fiction. This address of "Onze Jan" was the immediate cause of Gustav Preller, the sub-editor of *De Volkstem*, Pretoria, coming to the fore with his powerful and convincing plea for the acceptance of an Afrikaans written language. While "Onze Jan" still asked "Are We in Earnest?" Preller exhorted his countrymen, "Let us be in earnest." He realized that the sad state of affairs with regard to the language was primarily due to the neglect of Afrikaans. The antiquated armour, Netherlandish, so he maintained, should be laid aside, and the natural weapon, Afrikaans, should be used in the struggle for the national language and national traditions.

About this time the Afrikaans language found other enthusiastic advocates. Amongst these were Johan Visscher and the Rev. W. Postma in the Free State, who discussed the language question in *De Vriend* (Bloemfontein); D. P. du Toit, who was directly influenced by the First Afrikaans Movement, and who worked strenuously for Afrikaans in his paper *De Middellandsche Afrikaner* (Cradock); J. H. Malan, who edited *De Re-Echo* (Humansdorp) and who strongly advocated the use of Afrikaans as a written language; Eugène Marais, who had since the nineties published leading articles in Afrikaans in his paper *Land en Volk* (Pretoria); and J. S. M. Rabie, who as editor of *De Afrikaner* (Pietermaritzburg) pleaded in Natal for the recognition of Afrikaans.

The result was a heated controversy in the Press and on public platforms on the possibility of an Afrikaans written language, and it soon became clear that the new movement had not only youth and enthusiasm on its side, but also learning and ability. In December, 1905, the "Afrikaanse Taalgenootskap" was founded at Pretoria; in November, 1906, the "Afrikaanse Taalvereniging," at Cape Town; and in the beginning of 1907 an "Afrikaanse Taalgenootskap" was also started at Bloemfontein. The "Afrikaanse Taalvereniging" in particular exerted a powerful influence and did not scruple to deliver vigorous attacks even on prominent Dutch South Africans like Dr. W. J. Viljoen, who was still pleading for the Netherlandish language. By 1908 the protagonists of Netherlandish began to realize that it was essential to come to an understanding with the advocates of Afrikaans, and that it was in the interests neither of Netherlandish nor of Afrikaans to range the two in opposite camps.

Original works of high artistic merit began to appear in Afrikaans—e.g. "Die Vlakte" (1906) by Jan Celliers, "By die Monument" (1908) by Totius, "Oom Gert Vertel en Ander Gedigte" (1911) by C. Louis Leipoldt. Dr D. F. Malan in 1908 made a speech bearing the title "We are in Earnest," and the "Afrikaanse Taalvereniging" regulated the spelling. In 1909 the South African Academy for Language, Literature, and Art was founded for the express purpose, amongst others, of maintaining and furthering both forms of the Dutch language. The Academy prescribed rules for the spelling of Afrikaans in 1915 and again in 1918. In 1910 was started *Die Brandwag* (Pretoria), in 1914 *Ons Moedertaal* (Paarl), and in 1916 *Die Huisgenoot* (Cape Town)—periodicals which all strongly advocated the recognition of Afrikaans and which supplied the people with Afrikaans reading matter on almost every subject. The years from 1905 to 1914 were the real years of strife during the Second Period of the Afrikaans Language Movement. It is impossible to describe this strife here in detail, or to enlarge on the rôle that the different leaders played in political, ecclesiastical, educational, scientific, or other directions.

In April, 1914, came the first official recognition. On the proposal of C. J. Langenhoven, the Provincial Council of the Cape resolved to allow Afrikaans as medium in the primary schools, up to and including Standard IV; in June 1914 the Provincial Council of the Free State resolved to admit Afrikaans into their system of education; and that same month the Provincial Council of the Transvaal took a similar resolution. Langenhoven thereupon delivered a lecture before the Academy upon "Afrikaans as Medium of Instruction" and pressed for the proper carrying out of the resolutions of the Provincial Councils. For a short while opposition again became active; but the propaganda work was strenuously continued, and Afrikaans had finally triumphed in the school. In 1919 the Provincial Council of the Cape resolved that Afrikaans could be used both as medium and subject right through the school up to Matriculation.

In 1919 chairs in Afrikaans were established at the Grey University College, Bloemfontein, and at the University of Stellenbosch, and subsequently also at other university institutions. At the University of Stellenbosch and at the University Colleges at Bloemfontein and Potchefstroom the majority of subjects are to-day taught through the medium of Afrikaans.

In the Church, too, one success followed upon the other. The Reformed Church ("Gereformeerde Kerk") was the first to acknowledge Afrikaans as official Church language, and in 1916 the Dutch Reformed Church ("Nederduits-Gereformeerde Kerk") of the Free State, as well as that of the Transvaal, followed suit. In 1917 the Church Council ("Raad der Kerken"), a body on which all Protestant Dutch Churches are represented, realized that Netherlandish would never become the spoken language of the South African Dutch people, but they still hesitated to recommend the immediate acceptance of Afrikaans; in 1919, however, the majority of the Church Council were in favour of Afrikaans as Church language, and that same year the Cape Synod resolved to recognize Afrikaans as official Church language. Immediately thereafter arrangements were made for the translation of the Bible into Afrikaans; and a committee of translators have now for several years been occupied with this task. In 1924 the Cape Synod again declared itself most emphatically in favour of Afrikaans as official Church language. Religious works in Afrikaans have become quite common, and metrical versions of a number of psalms and hymns have been published.

In 1918 the Union Parliament decided to recognize Afrikaans as official language for all official purposes, except in Bills of Parliament, laws, and official documents of either House of Parliament, for which purposes Netherlandish had still to be used. But in May, 1925, it was resolved at a joint sitting of both Houses of Parliament to amend the language clause of the Act of Union in such a manner as to recognize Afrikaans everywhere and for every purpose as one of the official languages of the Union.

The Afrikaans language thus enjoys complete official recognition to-day, at least on paper. In a few years' time it gained ground tremendously, and it is to-day practically the only form of the Dutch language which is studied and written by Dutch South Africans. Nearly all newspapers and periodicals intended for the Dutch-speaking population appear in Afrikaans, and sneering at the impotence and poverty of this "peasant dialect" is a thing of the past. It possesses a fixed spelling and a literature which, though limited in extent and young in age, has compelled the respect and admiration of competent judges even in Europe. Prose writers such as Langenhoven, Leon Maré, and Sangiro, and poets like Celliers, Totius, and Leipoldt, have demonstrated to the world what Afrikaans is capable of. The most distinguished Netherlandish scholars in the fields of language and literature enthusiastically welcome the new language so closely related to their own and do all within their power to encourage and support it. The vast majority of the English-speaking population are no longer hostile to the second language of the country, and their children study it at school. The Government is sympathetic and is financially supporting the compilation of a large Afrikaans dictionary.

Every one who has any knowledge of the South African language conditions will agree that the recognition of Afrikaans was a necessary and just act. The future will yet have to show how the Dutch-speaking South African will use his new possession for developing himself and his country; but the first results give us good reason to expect that a great deal of good will be achieved when once a generation has arisen which has enjoyed the privileges of real mother-tongue instruction in youth. The principle of bilingualism, too, which is laid down in Section 137 of the Constitution of the Union, and which has repeatedly proved to be a necessary condition for the development of a united and contented South Africa, has obtained a new meaning since the coming of Afrikaans; it is now, with a generally known language, certainly much easier for heads of Government Departments and public leaders to apply that principle in an honest and unambiguous manner, for it is now no longer necessary to struggle along with the clumsy Netherlandish translations of Dutch South Africans or with the less easily understood Netherlandish of Netherlanders. Given mutual good will and a spirit of co-operation, the use of Afrikaans will undoubtedly contribute in a great measure to the satisfactory solution of the difficult and complicated problem of bilingualism. If this be the result, then the recognition of Afrikaans will indeed be an event of first-rate importance in the history of South Africa.

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§ 5. Honours held in connexion with the Union.

Lists were given in previous issues of the *Year Book* (Nos. 1 to 7) of honours held in connexion with the Union and honours conferred for military service during the European War. These lists are not repeated owing to considerations of space. During the second session of the fifth Parliament, a resolution was approved of by the House praying that His Majesty the King refrain from conferring titles upon his South African subjects. No honours were therefore conferred during the year 1925. Military honours are recorded in Chapter X.

§ 6. The Capital Cities of the Union.

Under the *South Africa Act,* 1909, it is laid down (Section 18) that Pretoria shall be the seat of Government and (Section 23) Cape Town the seat of the Legislature of the Union, thus practically establishing a system of two capitals, though the Act does not describe either city under that term. Under this arrangement the headquarters of the various Departments of State with their staffs are placed in Pretoria ; while the Houses of Parliament and the Parliamentary Establishment are situated in Cape Town. In terms of Section 94 of the *South Africa Act,* the seats of the Provincial Governments are fixed respectively at Cape Town, Pietermaritzburg, Pretoria, and Bloemfontein.

Previous issues (Nos. 1 to 5) of this *Year Book* contained particulars of the history and development of these cities.

§ 7. Geological Structure of the Union.*

A.—PHYSICAL FEATURES.

The Union of South Africa is divided into an interior plateau and a diversified tract of country between it and the ocean on the east, south, and west; the escarpment which separates the two regions is the Drakensberg of the Transvaal, the Drakensberg or Quathlamba of Natal and the Transkei, the Stormberg of the north-eastern Cape Province, the Sneeuwberg, Nieuweveld, Komsberg, Roggeveld, Bokkeveld, and Kamiesberg farther south and west, and it is continued northwards under less well-known names to beyond the Cunene River. The highest parts of the country are generally on or near the edge of the escarpment; it is only in the south, where the Cape ranges lie, that the ground between the escarpment and the coast rises in places to greater heights than on the escarpment itself. Though the highest point in the sub-continent (Giant's Castle) is only about 10,880 feet above sea-level, some 40 per cent. of the Union is included within the 4,000-feet contour, and most of this elevated country lies on the interior plateau.

The plateau is generally a country of great plains from which rise flat-topped hills of irregular plan, for it is chiefly made of nearly horizontally bedded shales and sandstones and sheets of dolerite, varying in the resistance they offer to denudation; but where these flat rocks (Karroo beds) have been removed, as in the northern and central Transvaal, Griqualand West, Prieska, Kenhardt, and Namaqualand, the older rocks usually appear in ridges or plains according to the attitude of their beds, or in irregular plains and craggy hills where they are extensive igneous intrusions.

The interior plateau can be divided up into several regions more or less sharply defined from each other by the shape and character of the surface and the climate. The number of these regions can be increased by narrowing the range of characters considered to be distinctive of each, but most of those adopted here are commonly recognized as convenient units. The surface characters are the results of past geological events and climate, but although references to some of these events will be found in this and the succeeding geological section, limits of space forbid a full discussion here, and our knowledge is very deficient on many questions of importance connected with the evolution of the sub-continent. The following is a list of the plateau regions:—

1. The High Veld.
2. The Basuto Highlands.
3. The Upper Karroo.
4. The Namaqua Highlands.
5. The Kalahari and Bushmanland.
6. The Kaap Plateau.
7. The Middle Veld.
8. The Bushveld.
9. The Limpopo Highlands.
10. The Low Country (including much country below the escarpment).

1. **The High Veld.**—High Veld includes the southern Transvaal and a large part of the Orange Free State. It has an invigorating climate, with a rainfall of from 20 to 35 inches. Lying for the most part over 5,000 feet above sea-level, it is perhaps the most favourable region in the Union for a white population. It happens that the Witwatersrand is in it, and the grand climate of the Witwatersrand, where excessive heat is never experienced, is of very great importance to the mining industry. The country generally has an undulating surface, which becomes flatter, or more varied by steep-sided flat-topped hills, as one travels westwards towards drier regions. Sheep, cattle, and mealies are the chief farm industries. It is essentially grass country, and the protection required both from the summer sun and the cold winds of winter is as yet inadequately provided by trees planted in coppices and wind-breaks. The streams are often perennial. Pans are an anomalous feature, for they can hardly have developed under present climatic conditions. The Lake Chrissie group of pans, for instance, has reached a further stage of development than those in other parts of the plateau, though they are in an area with high rainfall; they were probably formed during a drier period than the present.

2. **The Basuto Highlands.**—The Basuto Highlands are much more mountainous than either the High Veld or the Upper Karroo. The region is made of the upper groups of the Karroo formation; the upper streams of the Orange River System have eroded deep valleys in the surface, and the pale Cave sandstones capped by dark basaltic flows give character to the region. These rocks make a type of scenery here which is in the strongest possible contrast to that formed by them in the Springbok Flats of the Transvaal Bushveld, where the rocks rarely crop out from the sandy ground. The contrast is due to the difference of altitude above the outlets of the rivers draining the two regions; in Basutoland the rivers are actively cutting down their beds, and the local differences in height are as much as 5,000 feet, while the Nyl and Olifants Rivers from the Springbok Flats meet the hard rocks of the Limpopo Highlands within a short distance of the Flats, where the rocks have

* Contributed by A. W. Rogers, Sc.D., F.R.S., Director of Geological Survey.

disintegrated faster than the streams can carry away the sand, and the local range in height from river beds to the highest points is scarcely over 200 feet. The region has a high rainfall, but the steep slopes and the destruction of bush make it the most prominent example in South Africa of the dominance of erosion over deposition.

3. **The Upper Karroo.**—The Upper Karroo is not sharply defined from the High Veld in the Orange Free State; it has a wide range in rainfall, from less than 5 to 25 inches, and small bush becomes the most constant type of vegetation. Plains, from which rise flat-topped hills boldly scarped by sandstone and dolerite sheets, are the characteristic type of scenery, and can be seen from the railways in the Cape north of the escarpment and in southern Free State, while rough dark ridges, the outcrops of inclined sheets of dolerite, are occasionally seen traversing the country for many miles. This is the region most affected by severe droughts and their attendant evil of soil erosion due to overstocking, the destruction of veld consequent on the limited number of watering-places and the kraaling of sheep necessitated by the existence of jackals. The streams are intermittent; the soil is thin, except in the alluvial tracts in the valley bottoms, and surface-limestone becomes an important feature in the drier parts of the region. Pans are abundant, and in the low-grade valleys of the north-west the wide "vloers" of Carnarvon and Calvinia, more or less well-defined flat areas a few miles wide, thinly covered with brackish silt, are a striking feature. Pans are specially abundant near the limits of the Karroo beds, the easy destruction and flat bedding of which have facilitated their formation by wind. Owing to the great range in rainfall and altitude (2,000 to 6,000 feet) there is considerable diversity of conditions in this region. While the north-western parts are little better than desert, the more favoured areas to the south and east are well covered with permanently occupied farms, though agriculture is restricted to the alluvial tracts.

4. **The Namaqua Highlands.**—The Namaqua Highlands are part of the rocky western edge of the plateau; with scanty soil and low (5 to 15 inches) rainfall, they afford little scope for agriculture. Short perennial streams are found in the Kamiesberg, but the mountainous country enclosed by the great bend of the Orange River is very dry, as is also its continuation in South-West Africa. Copper mining has been an important industry since the fifties of last century.

5. **The Kalahari and Bushmanland.**—The Kalahari and Bushmanland are separated by the deep rocky valley of the Orange River, but they are alike in having a low rainfall (5 to 10 inches), practically no surface water and a thick covering of sand through which rise hills of the island-mountain type, i.e. hills with straight and steep profiles with an abrupt change of slope at the base. The rivers are channels through which water passes from less arid country to the east; they rarely receive local additions, and the Orange River is the only one that always contains water. Grass is the predominant vegetation, and it is doubtless nourished by the water held by the sand into which the rain sinks rapidly. There are no quantitative observations on the run-off in this region, but it must be extremely small. Only on the western edge is there hard-veld in which small bush, like that of the Karroos, dominates over grass. There is good grazing after rain, and the feeding qualities of the grass persist through the droughts, but the region is essentially trek-veld unfitted in general for continuous occupation.

6. **The Kaap Plateau.**—The Kaap Plateau lies between the Kalahari on the west and the Campbell Rand, an escarpment flanking the right side of the Dry Harts-Vaal valley on the east. Though the Kaap Plateau would be a better unit if the term were restricted to the limestone plateau between the Asbestos-Kuruman range and the Dry Harts-Vaal valley, it is customary to include the Langebergen as well as the Asbestos-Kuruman hills in it, and the region thus defined ranges in height from about 4,000 to rather over 6,000 feet above the sea, has a rainfall of from 5 to 20 inches, and its character presents considerable variety. The great limestone plain on the east, together with similar but smaller plains between the Langebergen and Asbestos-Kuruman hills, have extensive underground drainage, and the Kuruman spring is one of the largest in the country. The great quartzite range of the Langebergen and the similar but less conspicuous Korannabergen on the edge of the Kalahari to the west are the most marked ranges made of hard folded strata in the north of the Cape Province, and, in contrast to the Langebergen of the south of the Province, they owe their present existence to having been exposed by the removal of the Karroo formation under which they were once buried. The southern ranges are of much later date (late Karroo or post-Carboniferous), for the basal Karroo beds, which in the northern Langebergen (and also in the Asbestos-Kuruman hills) are still represented by undisturbed flat-bedded outliers, were completely involved in the great crustal movements which gave rise to the southern ranges.

7. **The Middle Veld.**—The Middle Veld stretches from the valley of the Vaal River near its confluence with the Orange north-eastwards through the Transvaal; it includes only a fringe and outliers of the Karroo beds. The pre-Karroo landscape in this region has been almost completely exposed, and has apparently suffered little change since the

removal of the Karroo beds. The chief hill ranges in this old landscape are the Magaliesberg and Gats Rand, and the extensive plains of the western Transvaal made of the Ventersdorp beds are of equal age. The dolomite country of Pretoria, Rustenburg, Marico, and Lichtenburg is noted for the underground drainage and apparently capricious behaviour of streams usually found in such a region. The region has a great range of soils on account of the variety of rocks on which they lie, the dolomite, the shales and ferruginous beds of the Pretoria series, the quartzites of the latter and of the Black Reef and Witwatersrand System, the Ventersdorp volcanic rocks and the intrusive diabase sheets, the granite and schists, and the outliers of the Karroo beds. The diamond-bearing gravels in the Vaal River valley and the most important productive diamond-bearing "pipes" are in this region. The rainfall average ranges from 15 to 30 inches, and the country lies between 3,000 and 6,000 feet above the sea, presenting a considerable variety in its vegetation and scenery, from the wide grass flats with scanty scrub of the west to a type approaching that of the Bushveld in the east. The iron ores on which the hopes of a future iron industry of South Africa are based occur in this region, though they are not confined to it.

8. **The Bushveld.**—The Bushveld is the flat and undulating country in the central Transvaal surrounded by roughly concentric ridges made of lower and lower strata of the Transvaal System as one proceeds outwards to the north, east, south, and west from the Bushveld, which is itself made of the remarkable igneous intrusions called the Bushveld Complex, overlain in places, especially in the Springbok Flats, by thick outliers of Karroo beds. It lies between 2,500 and 6,000 feet above sea-level, and has a rainfall average of from 15 to 25 inches, but the north-eastern corner, about M'Phathlele's Location, would seem from its Karroo-like vegetation and abundant surface-limestone, to have less rain than the rest; in that corner, also, hills of the island-mountain type are conspicuously developed, though this kind of hill is seen near the southern limit of the Bushveld in the Pyramids just north of the Magaliesberg. Towards the east the Bushveld has massive ridges and hills made of the acid and basic rocks of the Complex. The rivers leaving the Bushveld have to traverse very resistant rocks of the Transvaal and Waterberg Systems, and their grades above the poorts or valleys in those formations are comparatively low, so there has long been an accumulation of sand within the area, and there are large tracts of black "turf" containing much organic matter in the valleys with lowest grades. Two other remarkable features in the Bushveld must be mentioned, the great group of island-mountains called Pilandsberg, made of peculiar volcanic rocks and intrusions of related kinds, and the Pretoria Salt Pan, a volcanic neck encircled by granite hills, and lying 200 feet below the surrounding country. The Pilandsberg is a very old feature, certainly of pre-Karroo date, while the Salt Pan has been shown to be of post-Karroo age.

9. **The Limpopo Highlands.**—The Limpopo Highlands are a composite region which includes very different areas, the Transvaal Drakensberg, the Waterberg, the Pietersburg plateau, and the Zoutpansberg. The contrast between the forests of the Mist Belt on the east or the isolated forest near Hangklip on Zoutpansberg and the thorn scrub of the Pietersburg plateau is very great, and reflects the great range in average rainfall, 15 to 70 inches, while the altitude above the sea ranges from 3,000 to over 6,000 feet. The highest ground is made of quartzites of the Transvaal and Waterberg Systems, and the lower of granite and outliers of the Karroo formation. The great gorges cut by the rivers draining the Bushveld and the eastern parts of the Middle and High Veld through the eastern quartzite rampart afford magnificent scenery, while the western edge of the region in the Waterberg flats resembles the neighbouring Kalahari in being a sand-covered area traversed by rivers fed chiefly from without. The Waterberg flats grade into the Kalahari on the west and the Low Country of the Limpopo valley on the north.

10. **The Low Country.**—The Low Country ranges from 500 to 3,000 feet above sea-level. The great escarpment abuts on the southern flank of the Zoutpansberg, which continues past it into the northern continuation of the Lebombo flats, where it disappears under Karroo rocks, so that the Low Country extends from the Waterberg flats down the Limpopo Valley, round the eastern end of Zoutpansberg, into the eastern Low Veld. The Low Country is unhealthy and the rainfall varies from 50 to 70 inches in places on its western limit on the escarpment to 15 to 25 inches in the east and in the Limpopo valley. Made chiefly of granite and schists, the harder portions of which form island-mountains such as the Murchison Range, the Limpopo valley itself has below the junction of the Njelele River, large areas of Karroo beds and limburgite and basic soda-rich lavas probably of post-Karroo date. The Lebombo range on the east is made of Karroo rocks, sedimentary and volcanic, dipping seawards.

The country between the escarpment and the ocean is considerably smaller than the interior plateau, but as regards climate and structure it presents as much diversity. The outstanding difference in structure is due to the existence of the Cape ranges, folded mountains of late Karroo age, whereas in the plateau region all the folding took place in very much earlier—probably pre-Cambrian—times, and the late or post-Karroo earth-movements were either widespread and vertical or, in a few regions, local and vertical. The axes of folding

in the Cape ranges do not follow closely the curve of the escarpment, nor are they parallel to the coast, but it is obvious that these three great physical features are to some extent interrelated. The country below the escarpment can be conveniently sub-divided into the following regions :—

11. The Great Karroo.	13. The Folded Belt.
12. The South-eastern Region.	14. The Coast Belt.

11. **The Great Karroo.**—The Great Karroo is the dry country (average rainfall from less than 5 to 15 inches) between the escarpment and the Folded Belt. Its eastern limit is ill-defined, but may be placed on the Sundays River, beyond which the rainfall increases towards the north-east and the Cape ranges disappear, so that the slope to the coast is not broken by a defined mountain range. The region lies between 1,000 and 4,000 feet (Klein Roggeveld) above the sea. The driest parts are the Tanqua Karroo on the west and the Ghoup (or Gouph), the valleys of the Dwyka and Gamka Rivers, in the central part. The region is immediately underlain by the lower half of the Karroo formation ; thin soils and rock-strewn surfaces between outcrops of sandstone and shale are characteristic. The alluvial soils along the rivers are very fertile where protected from the accumulation of salts. Defined pans are not found in the region, but on the shale flats there are irregularly bounded bare areas covered with a brak silt, which may be regarded as pans in process of formation. The vegetation is drought-resisting scrub ; grass appears only in exceptionally wet years. The Great Karroo has gradually become occupied since the early years of the nineteenth century ; before that time it was regarded as a desert unfit for man or beast, but well-sinking and donkey transport have bettered the conditions.

12. **The South-eastern Region.**—The South-eastern Region consists of the seaward slope of the escarpment from the Graaff-Reinet district north-eastwards to the southern limit of the Low Country. At the western end the Folded Belt lies between it and the coast, but the Cape ranges are finally cut through by the coast near the mouth of the Great Fish River, and beyond that neighbourhood the Lower Karroo beds reach the coast unfolded for many miles, but, in a small tract at the Umgazana mouth, inclined Stormberg beds lie on the coast south of an east and west fault, and in eastern Pondoland the Lower Karroo beds dip towards the shore at considerable angles. Farther north in Natal a wide belt of pre-Karroo rocks appears along the axis of a low anticline flanked on the coast side by remnants of Karroo beds. In the interior of the region the country is terraced by thick dolerite sheets and massive sandstones, and remarkable intrusions related to the Karroo dolerites but more bulky and with a wider range in composition form the Ingeli, Tonti, Insizwa, and Mount Currie. The rainfall increases (from 15 to 40 inches) towards the north-east, and the streams become more and more permanent in the same direction. The rivers in general have steep grades, but there are numerous instances of long stretches of low grade with " cut-offs " and meanders above falls or rapids on thick sandstones or dolerite sheets, and the valleys are usually deeply entrenched in the terraced landscape. Grass is the characteristic vegetation, but in the south-west there is a transition to Karroo scrub, and forest or thick bush become conspicuous in the valleys towards the north-east.

13. **The Folded Belt.**—The Folded Belt embraces the mountain ranges in the south of the Cape Province and the wide valleys between them. The Cape ranges owe their existence primarily to the earth-movements of late Karroo times, but they are made of the harder, more weather-resisting portions of the very thick (probably at least 20,000 feet) body of strata known to have been involved in the folding, so these ranges have quartzitic rocks on the surface and sandy soils poor in lime and clay. The valleys are mainly in the synclines, predominantly shales of the folded formations and shales and conglomerates of the Cretaceous beds which were deposited unconformably on the folded rocks ; but extensive tracts of pre-Cape slates, granites, and limestones appear in the cores of certain anticlines and on the west from under the less disturbed flank of the folded rocks. The region ranges from near sea-level to 7,627 feet in the Seven Weeks' Poort Mountain on Zwartberg, and it presents as great or even greater variety in soil and climate than any other of the regions into which the country is here divided. The Little Karroo of Ladismith (Cape) has a considerable resemblance to the Ghoup, though made of the Bokkeveld beds instead of Karroo strata, for it has a very low rainfall, while close at hand on the south is Tradouw Berg with wet climate, sour soil, and the stretch of forest called Grootvader's Bosch on its southern flank. The mountains on the west trend north-north-west, and their folds flatten out in that direction ; where these rocks are cut by the coast and the lower reaches of Olifants River they are inclined at very low angles. Possibly the inland axis of Cedarberg is represented farther north by the edge of the escarpment of Kamiesberg, and, if so, this is the only region where the escarpment and folded belt coincide, but the amplitude of the fold has decreased so much that denudation has removed the most obvious kind of evidence required to substantiate its existence there. Near Karroo Poort the east-west folds make their appearance and from thence eastwards the numerous axes are, in plan, wide curves concave to the south, and, in general, the height of the mountains above

sea-level decreases until they reach the south-eastern coast. The closest folding is probably in the Zwartberg region, but towards the east the region where the folds flatten out is covered by the sea. A striking feature in the Folded Belt is due to the former existence of a plain or plains sloping towards the nearest large rivers or the sea from various heights up to about 2,500 feet above the sea; rough mountains rose from this ancient plain, the remnants of which are seen as a fringe on their slopes and as tablelands separated from the terraces by deep valleys. This great plain extended at least from the Albany district westwards as far as the Breede River valley and the Ceres Karroo, and it was of post-Cretaceous date. The climate of the Folded Belt ranges from almost that of a desert (near Prince Albert and Karroo Poort) to one with over 70 inches of rain about the sources of the Berg River. The south-western and southern rivers rising in the mountains are perennial, but the great rivers from the escarpment, the Sunday, Gamtoos, Gouritz, and Tanqua, may become a series of pools in times of drought; they receive insufficient water in their courses across the Folded Belt to maintain a constant flow at all times.

14. **The Coast Belt.**—The Coast Belt varies greatly in width and character. In the north-west it is continuous across the Orange River with the Namib of South-West Africa, which is the only true desert in the country; though the rainfall is low (average of 2·17 inches at Port Nolloth) the heavy sea fog on that part of the coast maintains a fairly thick cover of bush on the sandy ground. Towards the south and east the rainfall increases steadily, except for the marked inversion at the Cape Peninsula, as far as the George-Knysna districts; beyond that area of heavy fall it drops sharply near Algoa Bay and rises again towards Durban, where the coast assumes tropical characters. The coast generally is low and shelving or the shore may be backed by low cliffs behind which the ground rises gradually. Great cliffs fronting the sea are only found round the Cape Peninsula (800 feet at Cape Point), and less conspicuous cliffs occur north of Port Nolloth, near Strand Fontein, Baboon Point, and near Saldanha Bay on the west coast, and to the east near Hermanus, Cape Infanta, Cape St. Blaize, George, and Knysna, and on the coast of Pondoland. The west coast is remarkably straight from the Orange River to St. Helena Bay, and again from Algoa Bay to Portuguese territory on the east; the south coast has headlands such as the Peninsula, and the Capes Agulhas, St. Blaize, and St. Francis, made of hard Table Mountain Sandstone, but they afford little protection to ships, and the only good natural harbour on the coast is Saldanha Bay, which is probably a drowned valley. Drowned valleys at the mouths of rivers are marked features of the straight portions of the coast, but they have sand bars and are only available for ships when they are kept open by dredging.

The rivers of the Union can be grouped in three great classes: (*a*) those draining the interior plateau, (*b*) those taking their rise on the escarpment or on the slope to the sea below it, and (*c*) those rising in the Folded Belt. Some features observed in them have been mentioned in the description of the several geographical regions.

(*a*) All the drainage from the interior plateau eventually reaches the ocean by way of the Orange or Limpopo Rivers. The Orange River drains by far the largest catchment in the country (some 261,000 square miles, including the Nossob and Auob), and the fact that its mouth is closed for months at a time is a comment on the rainfall; it must be remembered that below the confluence of the Vaal River (over 600 miles from its mouth) the Orange receives practically no water during the greater part of the year, and that the river is thus in the main a channel carrying water from a region with an average of over 20 inches of rain through an arid country to the sea. The river goes over a fall of some 400 feet at Aughrabies, 300 miles from the mouth, and rapids occur to within 25 miles of the mouth. The high grade thus indicated is characteristic of all the South African rivers, though the Orange is the most striking example. The Limpopo, though it has a much smaller catchment, has a wider valley and lower grade; it reaches the 2,000 feet contour 530 miles from the coast, while the Orange reaches the same level 300 miles up its valley. The Limpopo is joined below the escarpment by the Olifants River, which drains a large part of the Bushveld and has an independent valley through the escarpment.

(*b*) The rivers rising on the escarpment are largest and most constant in the east, where the Tugela is the most important of them. The characters of their valleys have been mentioned in the description of the South-eastern region. The rivers which rise on the escarpment between the Sneeuwberg and Roggeveld cross the Folded Belt by a series of great poorts. Beyond the Sneeuwberg the rivers run only for a short time after rain.

(*c*) The chief rivers which have their origin in the Folded Belt are the Berg, Breede, and certain tributaries of the Gouritz, Gamtoos, and Sundays Rivers. They are in the main in longitudinal valleys following the strike of the rocks as contrasted with the transverse rivers draining from the Karroo.

The escarpment which bounds the interior plateau is by far the most important orographical feature in the country, and its significance as regards the geological structure and history of South Africa will be briefly discussed in the third portion of this article.

Its chief human interest is in the hindrance it offers to roads and railways. The most important mountain ranges of Alpine type, and also the youngest, are those of the Folded Belt; the older ranges of the same type, the Langebergen and Korannabergen in the north, are the comparatively recently exposed remnants of very ancient chains.

The Funduzi, in Zoutpansberg, is the only body of water in the Union that can properly be called a lake. According to Mr. T. G. Trevor, who visited this little-known spot in 1917, it is 3,000 yards long and is the result of the damming up of a valley by a landslip. The other closed depressions are shallow pans, which are most abundant in those parts of the interior plateau where the Karroo formation lies nearly flat and is being stripped from the older rocks by denudation, but they occur in other parts of the plateau and also on the coast belt. They owe their existence to various circumstances, but the action of the wind, under favourable conditions of rock-structure and weathering, is probably the most potent factor in their production. The largest pans are some 100 square miles in area.

B.—GEOLOGY.

The stratified rocks which build up the territory of the Union have been divided up into the systems, and subordinate groups, tabulated on page 39, and in this table there is a statement of the chief earth movements and phases of igneous activity so far recognized as having affected this country during the period represented by the succession of sedimentary rocks.

There is still much uncertainty on some of the main points in the geological record in South Africa, especially in the correlation and determination of the relative age of the more ancient sediments and of the great intrusions of granitic rocks in them. Up to the present time no fossils older than those of Devonian age have been determined from South Africa, and therefore it is from the structure and characters of the rocks themselves that the history of the greater part of the South African strata has to be deciphered.

Beds of proved marine origin are restricted to the margin of the sub-continent, and they are thin compared with the great deposits lacking fossils of marine habit, and, in the case of the Karroo system, abounding in evidence of deposition under fresh-water or continental conditions.

Owing to the want of fossils in the rocks older than the Bokkeveld (Devonian), there is no means of determining the base of the Palaeozoic in South Africa, and that horizon known as the Cambrian, and recognized in the other continents as one of the most important geological benchmarks, has therefore not been recognized here. This circumstance makes a local nomenclature of the older rocks necessary, because the use of such terms as Archaean or Algonkian, which are widely used elsewhere, is not strictly correct for any South African rocks, and the well-known lower Palaeozoic systems of other continents cannot be identified at all.

The *Swaziland system* comprises all sedimentary and volcanic rocks older than (or supposed to be older than) the Witwatersrand beds. According to some authors, all rocks in the country older than that formation should be grouped in this system, but the inclusion of granite and orthogneiss is not in harmony with the rest of the stratigraphical nomenclature used in South Africa. Proved intrusive rocks are therefore excluded from the Swaziland system as from the others. There are highly altered rocks of which the original characters are not known, such as certain granulites and schists in the Kheis series, and these will be placed in the system for convenience. Owing to the restricted range of beds generally acknowledged to belong to the Witwatersrand system, the proper test of age is in fact rarely applicable. Some geologists, such as Dr. Molengraaff, to whose work Transvaal geology owes much, recognize altered Witwatersrand strata in rocks here classed in the older system; while others regard the intrusive relation of microcline-granites and gneiss, which in the Witwatersrand area are older than the Witwatersrand system, as decisive in showing that the beds invaded are of pre-Witwatersrand age. This evidence of age can only be accepted in the immediate neighbourhood of recognized Witwatersrand strata, and it does not carry weight in distant areas such as Barberton or Prieska. Thus it becomes clear that the Swaziland system is a convenient class into which very old strata can be placed till satisfactory evidence of their age is found. The system is not comparable with any of the others adopted in South Africa, and the correlation of the various series described below is uncertain.

Moodies Series is the name given to a group of conglomerates, slates, and banded ironstones in the Barberton district, Mount Maré in Pietersburg, and in the Wakkerstroom and Piet Retief districts. Over large areas these beds have been altered by shearing and by acid and basic intrusive igneous rocks; andalusite and ottrelite-schists are abundant, while garnet, sillimanite and corundum are amongst the new minerals in the contact zones, and tourmaline extends through a great vertical range at Mount Maré. The *Jamestown series* in Barberton is described as a group of basic schists, chiefly intrusive, with which are

associated belts of altered sediments and volcanic rocks. The *Onverwacht volcanic series* of the same district consists of basic amygdaloids, quartz-porphyries, tuffs, and perhaps altered dolomites.

In Vryheid, Utrecht, Piet Retief, and the Nondweni district of Natal, there are sedimentary rocks which have been invaded by granite older than the Transvaal system. They contain gold-bearing conglomerates and beds which resemble some of those in the Witwatersrand system, and it has been suggested that they are part of that system. They have also been placed in the Swaziland system, and at present their correlation is a matter of doubt. The best known of these rocks is the *Pongola series*, divided by Dr. Humphrey into a lower group of quartzites, phyllites, and amygdaloidal lavas, and an upper group of shales, quartzites, and conglomerates. North of the Assegai River the amygdaloid below the sedimentaries is underlain by granophyre and gabbro into which granite intrudes.

In the divisions of Prieska, Kenhardt, and Gordonia, there is a great group of sedimentary and extrusive rocks known as the *Kheis series*. It is divided into three sub-groups, the Marydale, Kaaien, and Wilgenhout Drift beds, which apparently follow each other conformably upwards in the order named. Gneiss is in intrusive contact with all three sub-groups, and large bodies of the Marydale and Kaaien beds lie entirely surrounded by granite and gneiss. The Marydale beds consist of arkose, lavas of acid and basic compositions, tuffs, quartzites of various kinds including some with very much magnetite in them, limestone, and various schists and granulites. The original nature of some of the granulites is proved by the presence of amygdaloidal structure, but others are of doubtful character. The variety of new minerals developed in these beds is great. Amongst them are pyroxenes, amphiboles, garnet, sillimanite, cyanite, staurolite, and various lime silicates. The Kaaien beds are quartzites and quartz-schists chiefly, and they form the prominent range of hills on the Prieska–Kenhardt boundary, as well as Scheurberg in the Kalahari. The Wilgenhout Drift beds include slates, acid and basic lavas and tuffs, quartzites and limestones.

The *Kraaipan series* of Bechuanaland is older than the Ventersdorp system, but it has not been found to be penetrated by granite or gneiss. It is composed of banded magnetic quartzites, jaspers, various schists, limestones, and altered acid and basic lavas. The very similar beds of Abel's Kop and Goudplaats described by Dr. Jorissen are traversed by offshoots from the neighbouring granite.

In Gordonia and Namaqualand there are many lenticular masses of schists and quartzites in the gneiss. Sillimanite and garnet are often conspicuous in these rocks, and biotite and cordierite are usually present.

Granite and gneiss posterior in age to the *Kheis series* and to the rocks which are represented by the fragments of schists in the Namaqualand and Bechuanaland granites cover an area of many thousand square miles in the north of the Cape Province and the adjoining part of the Transvaal. They are quartz-microcline-orthoclase-biotite rocks as a rule. Amphiboles and pyroxenes are rare. Porphyritic granites are not often seen; pegmatites are abundant. The granites and gneiss of the northern and north-eastern Transvaal, as well as those of the country immediately north of the Witwatersrand, are quartz-microcline-plagioclase-biotite rocks generally, and are distinguishable from the much younger granite of the Bushveld.

A later, but probably pre-Transvaal, group of intrusive rocks is the Palabora Complex of granite, syenite and pyroxenite, which invaded the older gneiss and Swaziland beds of the Murchison range.

An important and interesting feature in the granitic areas north of Pietersburg and in the Low Veld is the abundance of corundum in pegmatites intrusive in ultra-basic magnesian rocks.

In Namaqualand, a group of small intrusions of rocks, varying from quartz-rocks to nearly pure magnetite, and including pyroxenite, norite, diorite, and anorthosite, is of later age than the gneiss and schists, and probably older than the Nama formation. They are of importance on account of the apparently syngenetic copper ores in them.

The *Witwatersrand system* is found in the southern Transvaal and the adjoining part of the Orange Free State, and it is probably represented by certain beds (Pongola series and others) in Natal, though the question is at present unsettled. In the chief area, the Witwatersrand itself, the system is divided by Dr. Mellor, who has recently mapped it in detail, into lower and upper groups, and these again into five series.

The *Lower Witwatersrand* beds comprise :—

The *Hospital Hill series*, commencing with the Orange Grove beds, quartzites and shales, which form the conspicuous northern escarpment of the Rand overlooking lower ground towards Pretoria. They rest upon a denuded surface of granite and schists, and are followed by thinly laminated siliceous and ferruginous rocks locally called slates or shales. With these beds are two thin but remarkably persistent bands of quartzites, the

ripple-marked quartzite and the felspathic speckled bed. Towards the top of the series are the thick Hospital Hill quartzites, sometimes coloured green, and in parts having large well-rounded quartz grains set in a finer grained quartzite matrix (sago structure). These quartzites, with the shales interbedded with them, form the ridges immediately north of Johannesburg.

The *Government Reef series* lies conformably on the Hospital Hill series, but along the Central Rand they are for the most part eliminated by strike-faults, a fact which was brought out by Dr. Mellor's mapping, and which was responsible for many misunderstandings of the succession of the rocks below the Main Reef group before the map appeared. The series consists of quartzites and shales, some of which are very ferruginous rocks and thin conglomerate beds which have not been found to be worth mining on a large scale.

The *Jeppestown series*, red-weathering argillaceous rocks with subordinate sandstones or quartzites, rarely forms good outcrops; it varies in apparent thickness from place to place owing to faulting.

The *Upper Witwatersrand group* follows the lower conformably, and differs from it chiefly in being more arenaceous and in having a greater development of conglomerates. At its base is the *Main-Bird series*, some 3,000 feet of quartzites with subordinate argillaceous beds and persistent bands of conglomerate, notably the Main Reef group of conglomerates in the lower part of the series, which are the important beds from an economic point of view because they yield almost all the gold won on the Witwatersrand gold field. In the Central Rand there are three reefs of banket—the local name for a gold-bearing conglomerate of quartz pebbles set in a matrix of pyritic quartzite. These are known as the Main Reef, Main Reef Leader, and South Reef. The Main and South Reefs thin out eastwards, leaving the Main Reef Leader as the productive reef there, and the Leader disappears westwards. The beds of conglomerate are not uniformly auriferous, and it has been found in certain areas that rich patches, several thousand feet in length, extend in a south-easterly direction, and are bordered by poorer conglomerate or even by rock formed by the hanging and foot walls coming together to the exclusion of pebble beds. The origin of the gold in the rock was probably detrital, as in placers, but it has been recrystallized subsequently. Evidence of the great molecular changes which have taken place in the Main-Bird series since their consolidation is seen in the abundance of chloritoid in the sediments, and in many of the older dykes of intrusive rocks which traverse them. Detailed study of the petrography of the conglomerates has been made by Prof. R. B. Young. The conglomerates above the Main Reef group, the Livingstone and Bird Reefs, are thin individually, though numerous, and are non-persistent. A band of chloritoid-chlorite rock, known as the Bird Reef Marker, lies a short distance above the Bird reefs on the Central Rand, and andesitic lava, called the Bird Amygdaloid, is on the same horizon in the East Rand and Heidelberg. The Hercules shaft of the E.R.P.M. passes through the two rocks, the amygdaloid being underlain by the sedimentary type. The *Kimberley-Elsburg series* lies conformably on the beds just described, and at their base is a thick band of argillaceous beds, the Kimberley shales. The Kimberley conglomerates are usually separated from the shales by quartzites, and grits and quartzites some 3,000 feet thick separate the Kimberley from the Elsburg conglomerates. These latter are often large-pebble conglomerates, and in the main area of their occurrence north of the amygdaloids of Klipriversberg no discordance below them has been detected. The occurrence, however, of very similar conglomerates lying unconformably on Lower Witwatersrand beds at Langermann's Kop and the north side of Bezuidenhout Valley points to the unconformable overlap of the Elsburg beds northwards.

Witwatersrand beds form considerable areas in the Heidelberg and Klerksdorp districts, and also in Vredefort. In Heidelberg the thickness of the Witwatersrand system is reduced to 57 per cent. of what it is on the Rand, while the series are reduced to from 30 to 66 per cent.

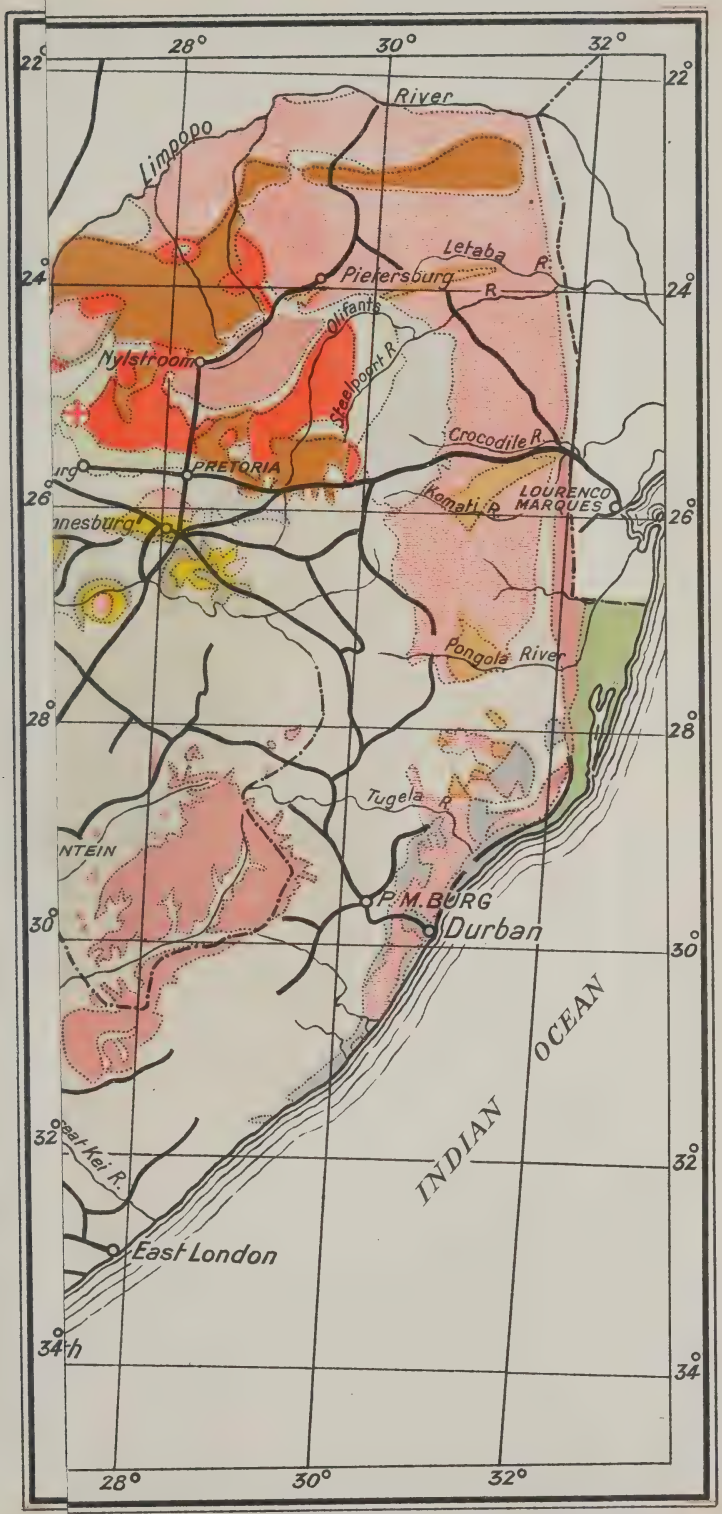
The *Ventersdorp system* lies on the Elsburg beds conformably in the Klipriversberg and Heidelberg, and overlaps the Witwatersrand beds unconformably on the Witwatersrand; in the Cape Province it lies on older rocks. It is mainly a volcanic group, and three sub-divisions, the *Zoetlief*, *Kuip*, and the *Pniel series*, have been distinguished by Dr. Du Toit, separated from each other by unconformities. The Zoetlief beds are acid lavas, tuffs, quartzites, shales, limestones, conglomerates, and flagstones found in Bechuanaland, Prieska, and in the Kimberley rock-shafts. Acid lavas resembling those of the Zoetlief beds occur at Klerksdorp and other places in the Transvaal. The *Kuip series* has only been recognized near Omdraaisvlei; it consists of basic lavas, arkose, flagstones, limestones, and chert. The Pniel series covers a much wider area than the two lower groups in the Cape Province. The lavas of the Pniel series are usually blue or green amygdaloidal diabase or andesite, though quartz-porphyries also occur, and tuffs and breccias accompany them. Conglomerates, quartzites, and other sedimentary rocks often underlie the volcanic beds in the Cape Province. In the Transvaal the Ventersdorp system covers wide areas south

and west of the Witwatersrand; amygdaloidal diabase, such as that in the Klipriversberg, plays a very important part in the formation, but there are conglomerates and quartzites as well as fragmental volcanic rocks in it. The Ventersdorp beds are not found under the Black Reef in the eastern Transvaal or the Pietersburg district; in the western and southern Transvaal and the neighbouring part of the Cape there is a close connexion between them in their distribution, though there is a marked unconformity separating them.

In the valley of the Orange River, from 12 to 36 miles above Upington, there are several areas of volcanic and sedimentary rocks known as the *Koras* series. They rest unconformably on, or are faulted against, the Kheis beds, but they have suffered little from shearing, and in this respect they offer a great contrast to all the other pre-Karroo rocks of the district. The series consists of two groups; the lower, and mainly volcanic, group is overlain unconformably by the upper group, which is composed of conglomerates and sandstones. The volcanic beds are composed of andesitic and basaltic lavas and tuffs, and there are intercalations of a red quartz-porphyry, probably intrusive, in them. The upper group contains much material derived from both the lavas and the porphyry. The correlation of the *Koras* series is uncertain, but it is probably part of the Ventersdorp system.

The *Transvaal system* is the most widely distributed of the pre-Karroo sedimentary rocks in the Union, and it also forms very large areas in South-West Africa. At its base is the *Black Reef* series, a group of quartzites and conglomerates with intercalations of shales. In Vryburg there are also volcanic rocks interbedded with the Black Reef, which, on account of their close resemblance to the underlying Ventersdorp lavas, emphasize the connexion between the two formations. The Black Reef series forms the great escarpment of the eastern Transvaal, where it is thicker than elsewhere, giving rise to some of the finest scenery in the Province. It received its name from the occurrence of black carbonaceous matter in the conglomerates mined for their gold content in the southern Transvaal. In the west of the Union these beds are very probably represented by the *Nieuwerust series*, which underlies the Malmesbury beds in Namaqualand and Van Rhynsdorp, and by the Kuibis beds in South-West Africa. The Black Reef series is conformably overlain by the Dolomite in the Transvaal, the neighbouring part of the Cape Province (*Campbell Rand series*), and in South-West Africa (*Schwarzkalk* and *Otavi series*). In Little Namaqualand thick dolomitic limestones lie on the Nieuwerust beds; but here there is a change becoming more marked southwards, the beds become an argillaceous and arenaceous group, the Malmesbury beds of the Cape Province. East of the Cape Peninsula, however, in Oudtshoorn and Humansdorp, there are again limestones (Cango and Hankey limestones) which may prove to be part of this series. In the Transvaal, Bechuanaland, and Griqualand West, the Dolomite has a most important influence on the water supply owing to its taking up large volumes in fissures and cavities, and giving the water out again from large springs. It is, in fact, the only formation in the Union which can be said to be water-bearing on a large scale. The rock is compact and usually crystalline, and the water is not held by the rock itself but is in the widened joints and other spaces. In Little Namaqualand there is a thick series of crystalline limestones, the *Kaigas series*, overlying the quartzitic *Stinkfontein series*. These two series are separated from the Nieuwerust and Malmesbury beds of Neint Nababeep by a few miles of older granite, and they are much folded and sheared in contrast to the rocks of Neint Nababeep. There are, however, strong reasons for regarding the Stinkfontein and Kaigas beds as the folded western equivalents of the Neint Nababeep rocks. The Stinkfontein series includes some lavas and breccias, and such rocks are not known in the Nieuwerust beds. The Dolomite is succeeded conformably by the *Pretoria series* (*Griquatown series* of the Cape Province), which consists of quartzites, shales, highly ferruginous beds and volcanic rocks, chiefly andesitic (Ongeluk beds). In the Cape Province and in parts of the Transvaal, asbestos (crocidolite and amosite) is strongly developed in the strata below the volcanic horizon, apparently by the rearrangement of material in the sediments in cross-fibred veins of amphiboles strictly parallel to the bedding. Important deposits of iron ore exist in the Pretoria beds in the Transvaal and Griqualand West. In the Cape Province there is a well-developed tillite with striated boulders just below Ongeluk lavas, and in Namaqualand the very remarkable *Numees series* lying above the Kaigas beds has many of the features of a tillite. The Numees beds are succeeded by green slates and a thick volcanic group, the Groot Derm beds, which are as yet little known. In Van Rhynsdorp and the districts to the south there is an unconformity above the Malmesbury beds, and the younger groups of pre-Cape sediments have thick conglomerates at their base in the Ibiquas and French Hoek beds. Whether the Cango conglomerates include beds overlying the limestones of that area is as yet uncertain, but some thick quartzites and conglomerates of that region apparently underlie the limestones. In the Transvaal, the Pretoria series includes three well-marked groups of quartzites, named from below upwards, The Timeball Hills, Daspoort and Magaliesberg quartzites.

In early editions of this article the *Rooiberg series*, consisting of felspathic quartzites, quartzites, shales, and felsitic lavas, which were invaded by the Bushveld igneous rocks,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Crocodile R.
PRETORIA
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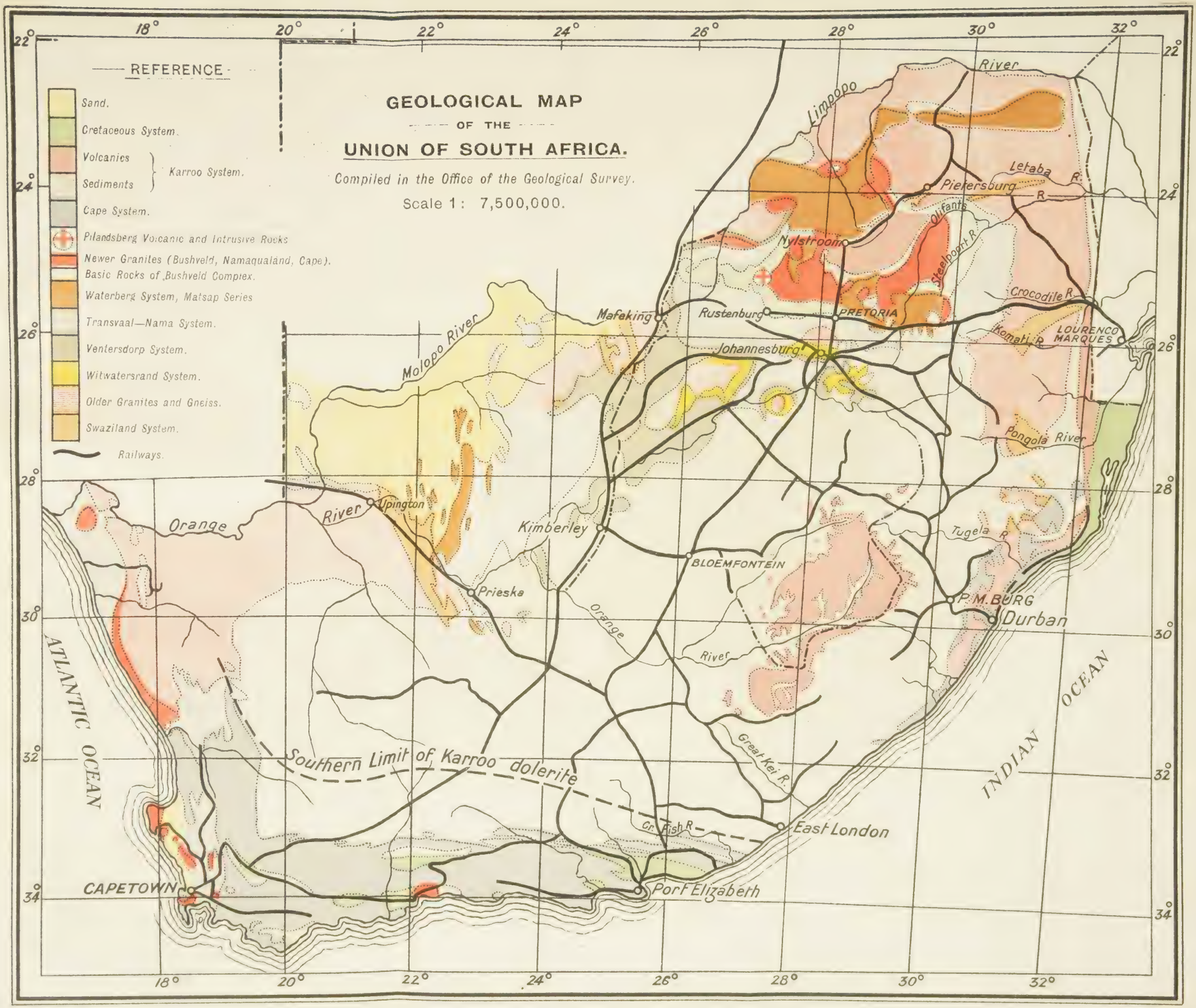
LOURENCO MARQUES
Pongola River
Tugela R.
P.M.BURG
Durban
INDIAN OCEAN
East London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Scale 1: 7,500,000.
REFERENCE
Sand.
Cretaceous System.
Volcanics
Sediments
Karroo System.
Cape System.
Pilandsberg Volcanic and Intrusive Rocks
Newer Granites (Bushveld, Namaqualand, Cape).
Basic Rocks of Bushveld Complex.
Waterberg System, Matsap Series
Transvaal—Nama System.
Ventersdorp System.
Witwatersrand System.
Older Granites and Gneiss.
Swaziland System.
Railways.
Limpopo River
Letaba R.
Pietersburg
Olifants R.
Nylstroom
Steelpoort R.
Crocodile R.
Mafeking
Rustenburg
PRETORIA
Komati R.
LOURENCO MARQUES
Johannesburg
Molopo River
Pongola River
Upington
Orange River
Kimberley
Tugela R.
BLOEMFONTEIN
Prieska
P.M.BURG
Durban
Orange River
ATLANTIC OCEAN
INDIAN OCEAN
Southern Limit of Karroo dolerite
Great Kei R.
Gr. Fish R.
East London
CAPETOWN
Port Elizabeth
18°
20°
22°
24°
26°
28°
30°
32°
34°

and in places clearly form the roof of the Bushveld norite and granite, was grouped in the Waterberg system and called "Lower Waterberg." During 1922 the work of the Shaler Memorial Expedition (under Prof. Daly) and the Geological Survey included re-examination of the supposed intrusive contacts of the Red Granite and Upper Waterberg at Balmoral and Gatkop, the result being to show that the Upper Waterberg beds rest on the granite with a sedimentary contact at those places and to necessitate the restriction of the term "Waterberg System" to what was formerly called "Upper Waterberg." The *Rooiberg series* is now provisionally classed with the Transvaal system, but east-north-east of Pilansberg it rests apparently unconformably on lower beds of that system.

A very important feature in the Transvaal is the mass of intrusive rocks which occupies an area some 280 miles long from east to west, and 160 miles wide in the central part of the country, and which is known as the Bushveld Igneous Complex. The rocks are in part covered by fragments of their original roof and partly also by much younger beds belonging to the Karroo system. The mass, as a whole, behaves as a lopolith, with a floor made of the lower members of the Transvaal formation and a roof of the Rooiberg series. It is composed of various rocks, possibly differentiates of a common magma, soda-rich granite (the Red Granite of Transvaal geologists) in the central parts, and more basic rocks, diabase, norite, gabbro, and pyroxenite in the peripheral and lower portions. Intrusions of the granite in the basic rocks prove that the latter solidified first. The mineral and structural changes produced by the Bushveld Complex on the surrounding rocks are extensive, and have been made the subject of special studies by Dr. Hall. The numerous sheets of diabase intruded amongst the Transvaal beds in the southern and central Transvaal are regarded as belonging to the Bushveld Complex, as are also the long dykes of syenitic rocks in the Transvaal. The scattered intrusions of nepheline-syenites and related rocks, of which the most important group is that of the Pilansberg, where there are also phonolites and other lavas (described by Drs. Brouwer and Humphrey), are generally considered to be the latest products of this great phase of igneous activity. The date, however, of this volcanic episode and the intrusion of the peculiar rocks associated with it is not known, but boulders of the peculiar rocks have been identified in the Karroo beds, and related dykes in Heidelberg are older than that formation. Prof. Shand has lately made careful studies of some of the intrusive rocks. There is nothing quite analogous to the Bushveld Complex in other parts of the Union, but in Namaqualand there is a large intrusion of hornblende-granite rich in lime-soda felspar penetrating the Nama (Transvaal) formation, and there are dykes of bostonite and camptonite associated with it. The date of this intrusion has not been fixed more closely, but the large granite masses of the south-west of the Cape Province (Cape Peninsula and its neighbourhood, Robertson, George, and Van Rhynsdorp) are normal granites and are post-Malmesbury (Transvaal) and pre-Cape in age.

The tin deposits of the Transvaal are connected with the Bushveld granite, and the less important tin ores of the Cape district with the granite there. The basic rocks of the Complex include deposits of chromite, and also platiniferous dunite and nonite, proved by recent prospecting work to have considerable economic importance.

The *Waterberg system* forms large tracts of country in the northern Transvaal (Waterberg and Zoutpansberg districts), and in the Pretoria and Middelburg districts. In the latter it rests unconformably on the Pretoria beds. It consists of conglomerates and quartzitic sandstones; the colour of the sediments is predominantly red or purplish, and the conglomerates are often coarse. The base of the *Waterberg system* in the Zoutpansberg is made of volcanic rocks of basaltic type.

The *Matsap series* of Bechuanaland, Griqualand West, and Prieska is regarded as the correlative of the Waterberg system on account of its stratigraphical position and lithological characters. It lies unconformably on beds belonging to the Ventersdorp and Transvaal systems, and is unconformably covered by the Dwyka. It consists of a great thickness of purplish quartzites with conglomerates and shales; but the arenaceous types predominate. In the middle of the series there is, on the eastern side of the Langebergen, a thick volcanic group, andesitic lavas and tuffs. The Matsap and Waterberg beds have not been connected by mapping between the north end of the Langebergen and the Transvaal, through Bechuanaland, but they may well be parts of one system.

The *Cape system* is developed in the south and west of the Cape Province, and it appears again on the south-east coast near Port St. Johns, and continues through the coast belt of Natal. Only the lowest series is found in the east.

One of the great questions of correlation in South Africa is whether the Waterberg system of the Transvaal is a part of the Cape system; but if, as is generally held, the Waterberg and the Matsap are parts of one system, there are great difficulties in regarding the Cape system as being their southern representative. In the south there is a conformable succession from the Cape beds upwards into the Karroo formation; while in the north a great unconformity, which represents a period of mountain building as well as a very long period of denudation, separates the Matsap and Waterberg formations from the Karroo beds.

The lowest member of the Cape system is the *Table Mountain series*, a group of sandstones and shales, the former predominating, which builds up the mountains of the Cape Peninsula and the long ranges flanking the Karroo on the south and west. In the Cedarberg there is a thick band of mudstone, containing scattered pebbles and boulders of various kinds of rocks, some of which are striated after the fashion of glaciated stones. This tillite lies about a thousand feet below the top of the series. The sandstones are often quartzitic, and have a characteristic appearance. They are occasionally conglomeratic, but the pebbles are usually scattered or form layers only one pebble thick.

The second series in the system is the *Bokkeveld* group, consisting of shales and sandstones, in the lower part of which there is a fairly abundant marine fauna closely related to that of the Lower and Middle Devonian of South and North America, and less closely to the Lower Devonian of Europe. Some of the Cape species have also been found in the Sahara. The Bokkeveld beds form the greater part of the cultivated portions of the Ceres District and the valleys between the Zwarteberg and the south coast, as well as the valleys immediately north of the Zwarteberg.

The third and youngest series is the *Witteberg* group of shales, sandstones, and quartzites, which are well seen along the western line of railway between Touws River and Matjesfontein. These beds have yielded few fossils, only badly preserved plants and a fragment of an eurypterid.

The Cape system is fully developed between Karroo Poort and the region where it is cut off diagonally by the coast near Port Elizabeth. North of Karroo Poort it becomes thinner and thinner owing to denudation in pre-Karroo times, and north-west of Calvinia the Karroo beds rest directly on the older Nama rocks or on granite.

The Karroo system occupies the whole of the central part of the Cape Province, almost the whole of the Orange Free State, the western side of Natal, and a large area in the south-eastern Transvaal. No evidence has yet been found that marine conditions occurred in this large area of deposition during Karroo times, but in a part of South-West Africa two kinds of marine fossils have been found in the lower beds of the system. In the southern Karroo the Witteberg series passes up conformably into shales, which are taken to be the base of the Karroo system, and which in their turn pass up into a hard boulder-clay or tillite without any precise line of division. To the north of Karroo Poort the shales are wanting and there is an unconformity below the tillite. The tillite is now regarded as of glacial origin by almost all geologists, for on no other hypothesis have the peculiarities of the rock been explained. It has a matrix of mudstone or slightly laminated and sandy, often calcareous, hardened clay, containing pebbles and boulders of many varieties of rocks occurring in places to the north of the spots where they are found in the tillite, and many of them are flattened and striated after the fashion of the stones in glacial deposits of regions which are now, or have within recent times been, covered by sheets of ice. In many districts north of the Karroo the tillite rests upon striated surfaces, or characteristically shaped hummocks of rock called *roches moutonnées*, which is very strong evidence of the glacial origin of the formation. The thickness of the tillite varies from a foot or so, or it may even be absent altogether, as in parts of the Transvaal, up to 1,400 feet in the southern Karroo. The general direction of movement of the ice was from the north. The tillite is followed conformably by shales in the west, south, and east, but in the Transvaal there is almost certainly a break of unknown but not great extent at the top of the *Dwyka series*, as the lowest group of Karroo rocks is called.

The *Ecca series* follows the Dwyka conformably in the Cape Province and Natal. It consists of shales and sandstones, and in Natal and the Transvaal the Middle Ecca beds are the main source of coal in the Union, and they also contain oil-shales. In the south of the Cape Province the Ecca beds reach their greatest thickness—over 6,000 feet. The series decreases in thickness northwards, and in the Transvaal it is probably only a few hundred feet thick. The Ecca beds contain a flora characterized by the genera *Glossopteris* and *Gangamopteris*, which, with their fellows, are found also in the Gondwana beds of India, and in Australia and South America. In these four regions of the globe the *Glossopteris* flora occurs in beds overlying tillite like the Dwyka tillite, and it is this fact which leads to the belief that an Arctic climate prevailed over a great region in the southern hemisphere at the remote period when the coal-measures of the northern hemisphere were being formed, or soon afterwards. The evidence as to the age of the beds as compared with the European rocks is obtained from Australia and India, for the marine fauna on which it rests does not occur in South Africa.

The *Beaufort series* lies conformably on the Ecca in the Karroo region, Natal, and the southern part of the Orange Free State, and it has been definitely recognized in the south-eastern Transvaal. Its most striking feature is the abundance and variety of its reptilian fossils, which are of exceptional interest because they include forms with mammalian relationships and the habit of walking with the body raised clear of the ground as proved by the structure of their legs. With the reptiles are amphibians, fish, lamellibranchs of fresh-water habit and some plants belonging to the same genera as those in the Ecca below,

as well as, in the uppermost beds, a few which are found in the Molteno beds above. Sandstones, shales, and mudstones, with a small amount of limestone, chiefly in the form of nodules, make up the Beaufort beds. In the south-eastern Transvaal Dr. du Toit has found that the upper coal beds of Volksrust are in the Beaufort series.

The *Stormberg series* follows the uppermost Beaufort beds conformably in the east of the Cape Province, and the neighbouring part of Natal and Basutoland, and it is ushered in by the shales and sandstones known as the Molteno beds, which are coal-bearing and include some oil-shales.

The Molteno beds contain a flora with Triassic affinities, but none of the reptiles known from the Beaufort series has been found in them. The Molteno beds occur in the east of the Orange Free State, but they have not been found in the north of that Province nor in the Transvaal.

The Molteno beds are succeeded in the Cape, Natal, Basutoland, and the south-east of the Orange Free State by the Red beds, which are red weathering sandstones and shales containing a few dinosaurs and other reptiles and fish.

The Cave sandstone, a rather remarkable formation of thick bedded sandstone, succeeds the Red beds conformably in the Cape, Natal, Basutoland, and the Orange Free State, and it also occurs in the Transvaal, where it is known as the Bushveld sandstone. It contains a few dinosaurs, a crocodile, fish, and some small crustacea. The Cave sandstone makes bold outcrops along the slopes of the Drakensberg in East Griqualand, Natal, and Basutoland; it is very closely associated with the volcanic rocks of the *Drakensberg series* at the top of the Karroo system, which form the precipitous portion of the Drakensberg or Quathlamba range, the Maluti Mountains, and also much of the flat country (Springbok Flats) of the Transvaal Bushveld. The lowest volcanic beds are interbedded with the Cave sandstone, and the series consists of andesitic and basaltic lavas and tuffs. A large number of the vents or necks from which outbursts took place are known, but it is probable that much of the lava came from long fissures now represented by dykes of dolerite. In the Lebombo the basaltic lavas are succeeded by rhyolites. The volcanic rocks of Zuurberg are of pre-Uitenhage age and are underlain by sandy marls containing fragments of bone; they are basalts, tuffs, and breccias, and are probably of Stormberg age.

To the latest part of the Karroo period belong the *intrusions of dolerite*, which are found traversing nearly all the rocks in the Union older than the *Drakensberg series*, as well as that group. The only large tract in the Cape Province which is free from dykes and sheets of this dolerite is the Folded Belt. The dolerite sheets give rise to the long lines of cliffs capping the escarpment of the Nieuwveld and its continuations to east and west, and both sheets and dykes form conspicuous features in the Orange Free State, Natal, and the Cape Province. In Griqualand East picrites and other ultra-basic differentiates of the basaltic magma have been discovered, and in the Insizwa, Tonti, and Ingeli masses they form important bodies of rock which may yield metallic ores of value. The acid differentiates are much more widely distributed. They are small bodies of diorite and granophyre, which rarely give rise to any conspicuous feature.

The *Cretaceous system* in the Union comprises beds of marine and continental origin found on or near the south and east coasts. The chief areas of these beds are in the Uitenhage and Alexandria Districts (where Dr. W. G. Atherstone first made out their sequence), Oudtshoorn, Riversdale, and Mossel Bay, where the older beds, called the *Uitenhage series*, occur. Narrow strips along the coast of Pondoland, and a wider area on the northern coast of Natal, are made of younger Cretaceous beds.

The lowest beds of the Uitenhage series are conglomerates and sandstones, which are followed by plant-bearing shales. In the Sunday's River valley these are succeeded by shales and limestones containing marine fossils of Neocomian age. West of the Uitenhage Division marine fossils have only been found in a small outlier of the series near Knysna. All these areas of Uitenhage beds are faulted down against older rocks to the north.

On the Pondoland coast conglomerates and sandstones have been faulted down against older rocks near the Embotyi River, and the few fossils found in them are like some of those in the larger area of marine shallow-water beds of the *Umzamba series* farther north-east. Many fossils have been collected from these beds, and show that they are of Campanian or Senonian age. At the Umzamba the beds lie unconformably on the Table Mountain series. In Natal the Senonian beds are underlain by Cenomanian strata on the Umfolosi.

Near East London and in Alexandria there are some marine limestones of Danian age, but little is known of them yet.

In Bushmanland a remarkable deposit of granite wash containing bones of dinosaurs fills an old valley leading to the Orange River. This may be a remnant of the continental deposits formed when South Africa began to have the type of climate which has led to the formation of the Kalahari, the semi-arid region from which Bushmanland is separated by the valley of the Orange River.

At some time after the Uitenhage beds were laid down, perhaps at a much later date, the peculiar phase of volcanic activity began, which is represented by the contents of many pipes and fissures distributed through the central portion of the Union, and found also in the Drakensberg, Riversdale, Van Rhynsdorp, Namaqualand, Gordonia, and outside the borders of the Union in Rhodesia and South-West Africa. Natal seems to be without them. The age of each occurrence can, of course, only be determined by the surrounding rocks, but there are certain features common to them and connecting links between diverse types of material filling the channels, so that it is probable that they were all related in origin. There can be no doubt that some explosive force produced the channels, or took advantage of pre-existing paths of weakness, and that the channels were filled with fragmentary or molten rock derived from various depths between the lower parts of the earth's crust and the superficial strata. As Dr. Wagner suggests, the explosions seem to have been connected with the marked rise in level of the sub-continent in late geological times. The most striking instance of a large pipe filled with fragments of the rocks traversed, but apparently devoid of minerals derived from contemporaneous rock-magma, is Geitsi Gubib in South-West Africa; but similar pipes and fissures exist in Van Rhynsdorp and Ceres. In the Sutherland Division there are many vents clustered round Saltpetre Kop filled with material derived from the rocks passed through mixed with minerals belonging to volcanic rocks, and in the neighbouring country there are pipes filled with breccia resembling blue-ground in containing minerals derived from great depths, accompanied by masses of melilite-basalt. The pipes and fissures filled with the rocks commonly known as blue-ground have been more thoroughly explored than any other of these channels, because some of them contain diamond in sufficient amount to repay mining, as at Kimberley, also near Pretoria, and at several places in the Orange Free State. Dr. Wagner has shown that these ultra-basic rocks, kimberlites, comprise basaltic and micaceous varieties, both of which may contain diamond, and that this mineral was almost certainly a component of the magma from which they were derived by differentiation at great depths. Xenoliths of eclogite in kimberlites and kimberlite tuffs and breccias have been found with diamond in them, and they have been regarded as the source of the diamond and accidentally associated with kimberlite; but the evidence is now very strongly in favour of these being cognate xenoliths formed at depth in the magma which also gave rise to kimberlite. The opinion of Carvill Lewis, that kimberlite may have been a melilite-basalt has not been substantiated, but the occurrence of that rock in several pipes in Sutherland, at Spiegel River, and in Namaqualand, where it also contains nepheline, points to some connexion between them.

In the Limpopo valley ultrabasic lavas, limburgites, and soda-rich rocks are in contact with various horizons of the Karroo formation. These lavas cover hundreds of square miles, and they were apparently poured out over an uneven surface of Karroo and earlier rocks. They may be of Cretaceous or Tertiary age; or, again, they may be little later than the Stormberg volcanic rocks, but they do not, like those, lie conformably or with moderate unconformity upon the Cave sandstone.

Beds of *Tertiary* age are known in the Union, but little information concerning them is at present available. The best known are those belonging to the *Alexandria* formation of Prof. Schwarz, and there are inshore marine beds occurring at various heights up to some 1,300 feet above sea-level on the south and east coasts. The fossils, according to Mr. R. B. Newton, are of Mio-Pliocene age. None of the early Miocene species described by Böhm and Weisfermel from near Bogenfels north of the Orange River have been found in the Union, though the fossil cephalopod, *Aturia*, a genus which occurs at Bogenfels, has been dredged off the Cape Province. Mr. Wm. Anderson discovered late Tertiary or early Pleistocene deposits on the coast of Zululand, containing the remains of extinct kinds of hippopotamus, buffalo, buck, and elephant. Inland deposits of Tertiary age are indicated by the occurrence of mastodont remains in the high-level gravels of the Vaal River near Barkly West. Extinct species of buck and buffalo from the Modder River, and a horse from the south-west coast, are probably Pleistocene.

In the Knysna district some valleys in the Table Mountain series are filled in with sands and lignites loosely consolidated. The age of these beds has not been ascertained, but they are perhaps as old as the Tertiary. Gravels far above the level of the modern rivers, and the superficial deposits cemented by lime or silica, which are widely spread within the Union, perhaps date back to Tertiary times, but proof of age is lacking. The calcareous tufas are extensively developed in the Kalahari region, the Transvaal, and Griqualand West, and less widely in the Karroo and the coast belt. The recent discovery of the bones of an extinct anthropoid ape in the tufa of the Kaap Rand, near Taung, points to these deposits being of great antiquity. The siliceous deposits which are closely connected with those cemented by hydrated iron oxides in the Folded Belt of the Cape, are most conspicuous in the country below the great escarpment, though they have not been noticed in the central part of the Great Karroo. They also occur in the Kalahari, Bechuanaland, and Griqualand West.

The gravels which are the site of the diamond-diggings in the Transvaal, Griqualand West, and Aliwal North lie at various levels from that of the modern river-beds, to 400 feet above them, and many miles from their banks. The chief diggings are in the Vaal and Hart's River gravels. In a few instances diamond gravels have been found far from the rivers, on the top of the Kaap Plateau. The deposition of these gravels probably dates back to Tertiary or even late Cretaceous times.

The great deposits of sand in the Kalahari and Bushmanland are of great age, though they are being formed to-day. The evidence from Bushmanland that dinosaurs lived there at the time when the valleys cut in the granite began to be filled with wash from the neighbourhood, and that since then the climate has allowed the steady levelling up and down of the inequalities of the surface, affords an indication that the development of the features characteristic of that region began in pre-Tertiary time.

C.—GEOLOGICAL STRUCTURE.

The dominating feature in the structure of South Africa is the great syncline of Karroo beds stretching 820 miles from Karroo Poort in the Ceres Division north-eastwards to Carolina in the Transvaal, with a width of 340 miles between Kimberley and the Transkei coast. On the north-western side of this irregularly oval area the base of the Karroo rocks maintains an altitude of between 2,500 and 5,500 feet above the sea, and the beds dip at very low angles towards the basin. On the south, between the Tanqua Karroo and the Keiskama, they are folded in a general east-west direction, and their dip carries them deep under the Karroo region. The shore cuts the edge of the syncline from the Gualana to the St. Johns River, and where the base of the system emerges near the latter, it is no longer markedly folded, but, striking through Natal, is affected by faults. The belt of pre-Karroo rocks trending north-north-east through Natal is on the axis of a low, broad anticline much faulted in its eastern limb, which in Swaziland merges in the easterly dipping beds of the Lebombo. Outliers of Karroo beds north of the syncline prove that they once stretched far beyond the borders of the Union, and that over the northern region there has been no earth-movement of the mountain-building kind since the commencement of Karroo times. The arc-shaped ranges of Griqualand West and Bechuanaland, the Langebergen and Kuruman hills, were undergoing denudation then, and the same statement holds good for much of the Transvaal, where the east-north-easterly trend of the structural lines in the Low Veld of the north, and the east-west syncline of the Witwatersrand are of pre-Transvaal date. The broad anticline trending east-north-east from the south-west of the Province to the West Rand is of pre-Karroo and post-Transvaal age, but it is superimposed upon older and more pronounced disturbances along approximately the same lines; and the marked arrangement of the hills about the great Bushveld intrusion, of which the longer axis is directed a little north of east, is a feature of pre-Karroo times. In the Transvaal the trend-lines of pre-Karroo age are chiefly in an east-north-east direction, and this strike, due to forces acting perpendicularly to that direction, was repeated at long intervals. In the north and west of the Cape Province the pre-Karroo movements were nearly at right angles to this, and produced north or north-north-west trends, and they were followed by the late or post-Karroo movements of the Cedarberg region. In the south the east-west trend of the pre-Cape folds was repeated in the late or post-Karroo movements, which gave rise to the southern mountain ranges. South and west of the Karroo the ranges with northerly trend in the west, and easterly trend in the south, are made of the Cape formation, and are due to the folding of the crust in late Karroo times by forces which tended to over-fold and thrust the strata towards the Karroo region, and the folds were produced where the Cape and lower Karroo sediments were very thick. The axes of the southern folds are inclined eastwards, so that the folded belt is traversed slantingwise by the coast between Cape St. Francis and the Keiskama.

The whole form of the basin, as it is now seen, has been determined by earth movements which gave rise to the dip of the beds, and by denudation removing the folded or nearly flat beds from part of the area formerly covered by them. The thickest deposits of the Karroo system were probably much nearer the southern limit than the northern, but whether the southern limit is within 100 miles of the original limit of deposition is unknown. The outliers in Worcester, Robertson, and Uitenhage prove that the rocks once extended south of the mountain ranges, and there is no trace of an unconformity at the base of the Karroo beds till they reappear on the coast of Pondoland.

The outliers of Cretaceous beds within the folded belt, probably remnants of a formerly continuous cover of those beds stretching westwards from Algoa Bay at least as far as Worcester, are faulted down on the south side of fractures parallel to the trend of the pre-existent southern folds. The great Worcester fault, the first of these important features to be discovered by Prof. Schwarz, was for long thought to be of pre-Cretaceous date, but Dr. Rastall has shown that it, like the eastern faults of the same group, was of post-Uitenhage age.

The main lines of the structure of Namaqualand were determined in pre-Karroo times, when the Nama formation had been subjected to intense folding on the west along axes trending north; but post-Karroo faulting is proved by the outliers of Dwyka in the valley of the Orange River, not far above sea-level. The flat country of the Kalahari and Bushmanland, now divided by the Orange River, is essentially a pre-Karroo plain, diversified by a few isolated hills, and is being stripped of its cover of Karroo beds except in the large areas where the accumulating sand protects the underlying rocks from denudation

The great escarpment which plays such an important part in the geography of the Union commences as a definite feature in the slope of the Woodbush, and from there southwards to the Carolina district the base of the Transvaal system forms the uppermost and steepest part; in that district the Karroo beds come in, and higher and higher beds of the system take part in the face of the escarpment as it is followed southwards into Natal, where the Quathlamba is a rampart of volcanic beds at the top of the Karroo formation; in the Native Territory of the Cape Province the same conditions hold, but the volcanic beds disappear in the Stormberg, and westwards of that region the escarpment is capped by lower and lower beds, until in Van Rhynsdorp the Nama system and still older rocks alone take part in its structure. There is thus a broadly symmetrical character in the escarpment on the two sides of the continent, and the asymmetrical feature due to the presence of the volcanic beds in the east has some relation to the submergence of the south-eastern edge of the Karroo basin in the same quarter. Since the escarpment lies, broadly speaking, parallel to the coast, it is natural to look for a connecting link between the two features. The greatest departure from this correspondence is in the south, where the Cape ranges intervene and the coast-line projects in conformity with the curve of the ranges in the Ceres district (syntaxis of the Zwartberg and Cedarberg folds), and does not follow closely the blunter sweep of the escarpment. In trying to find an explanation of the existence of the escarpment, it is most important to bear in mind the very great age of the interior of South Africa as a land-surface; from the Cape ranges northwards to Central Africa the country has probably been exposed to the air since Triassic times, and for a further period stretching back to Devonian times the sea is not known to have encroached upon it. How far the Devonian sea advanced north of the latitude of Calvinia is unknown. It appears from the present state of our knowledge that the escarpment marks the limit of headward erosion of the rivers draining the coast-belt and the Great Karroo, and that the prominence of the feature for long distances is due to the agents of erosion having encountered resistent horizontal or gently inclined strata or intrusive sheets of dolerite, one or other of which is a prominent feature of the greater part of the margin of the interior plateau. In Namaqualand these flat strata have in part been removed by denudation, but large remnants exist in the Steinkopf plateau, and again in the fragments near Nieuwerust. This view entails the great age of the coast-line as a whole, though it is often held that the straight or smooth shape of the coast indicates a recent origin through faulting. The fact, however, that inshore deposits of various dates from early Cretaceous to late Tertiary and recent age are preserved, on the south and east coast chiefly, is in harmony with the supposed great age of the coast as a whole, and no great faults parallel to the coast have yet been found. The great faults with downthrow on the ocean side, those flanking the southern ranges, are cut by the coast slantingwise. The enlargement of the area outside the escarpment in the Cape Province is evidently connected with the folding which took place in the region of the very thick deposits of the Cape and Karroo periods, and that in the north-east part of the Union is connected with the extensive rise in level of the sub-continent in Cretaceous and post-Cretaceous times.

D.—SYSTEMS OF GEOLOGICAL FORMATION.

		Stratified Formations.	Maximum Thickness.	Igneous Intrusions.	Earth Movements.
Cainozoic		Recent and sub-recent sands, gravels, tufas, ironstones, and surface quartzites; raised beaches.	Over 300 ft.		Depression of coast region, giving rise to lagoons.
		Marine inshore beds of Alexandria, Addo, Bredasdorp, and Zululand; lignites of Knysna	Small		Uplift of whole of South Africa.
		Ultrabasic lavas of Limpopo valley (?)			
Mesozoic	Cretaceous System.	Need's Camp series (Danian).....	—	Volcanic pipes and fissures of Kimberlite and melilite - nepheline basalts	Uplifts.
		Umzamba series (Senonian); Pondoland, Umkwelane Hill; shelly limestones and conglomerates	50 ft.		Encroachments of sea on south-east coast.
		False Bay (Zululand) and Manuan Creek (Cenomanian), clayey limestones	50 ft.		Faults in region of southern ranges.
		Uitenhage series (Neocomian): Sunday's River beds; marine clays and limestones	Over 4,000 ft.		Encroachments of sea over part of area where southern ranges exist.
		Uitenhage series (Neocomian): Wood beds; sands and clays			
		Uitenhage series (Neocomian): Enon beds; sands, clays, and conglomerates			
	Karroo System.	Drakensberg or volcanic beds; basaltic and andesitic lavas and tuffs of Quathlamba, Springbok Flats and Lebombo rhyolites	4,000 ft.	Intrusion of basic rocks throughout the Union	Emergence of land over Karroo region, following the restriction of area of deposition during the rise of the southern ranges.
		Stormberg series (Triassic and higher): Cave sandstones of Quathlamba and Bushveld sandstones of Transvaal	800 ft.		
		Stormberg series (Triassic and higher): Red beds; sandstones and shales	1,600 ft.		
		Stormberg series (Triassic and higher): Molteno beds; sandstones, shales, and conglomerates with thin coals in Cape Province	2,000 ft.		
		Beaufort series (Permian and Trias): Burghersdorp beds; shales and sandstones	3,000 ft.		Mountain building in the south and west of Cape Province.
		Beaufort series (Permian and Trias): Middle Beaufort beds; sandstones and shales	1,000 ft.		
		Beaufort series (Permian and Trias): Lower Beaufort beds; shales and sandstones	7,000 ft.		
		Ecca series; shales and sandstones; coal in Transvaal and Natal	6,200 ft.		
Palaeozoic		Dwyka series...: Upper shales....	800 ft.		Long period of depression and deposition in the south of the Union.
		Dwyka series...: Tillite.....	1,400 ft.		
		Dwyka series...: Lower shales....	1,000 ft.		
	Cape System.	Witteberg shales and quartzites series	2,500 ft.		
		Bokkeveld series; shales and sandstones; marine (Devonian) fossils in lower half	2,500 ft.		
		Table Mountain series; quartzitic sandstones and shales; tillite in Cedarberg region	5,000 ft.		Mountain building in Griqualand West, etc.
		Alkaline volcanic rocks of Pilansberg..	—	Syenitic dykes and sills	

D.—SYSTEMS OF GEOLOGICAL FORMATION—*continued.*

	Stratified Formations.		Maximum Thickness.	Igneous Intrusions.	Earth Movements.
Waterberg System.	Waterberg; sandstones, shales and conglomerates	Matsap series of Griqualand West etc.; quartzites, conglomerates, lavas, and tuffs	5,000 ft. Over 7,000 ft.		
	In East.	*In West.*			
Transvaal System.	Rooiberg series; quartzites, shales, and lavas	—	2,000 ft.	Intrusion of Bushveld Complex	Mountain building in south and west of Cape Province. Long period of depression in the north, west, and south of the Union.
	Pretoria series; shales, lavas, quartzites, and a tillite, ferruginous beds	Ibiquas, Numees, and Groot Derm beds	10,000 ft.	Intrusion of younger granites of the Cape Province	
	Campbell Rand series; dolomites, shales	Malmesbury and Kaigas beds	3,500 ft.		
	Black Reef series; quartzites, shales and conglomerates	Nieuwerust and Stinkfontein beds	2,550 ft.		
Ventersdorp System.	Pniel series; lavas, tuffs, conglomerates, shales, and quartzites	Koras series of Kenhardt and Gordonia; lavas, sandstones, conglomerates	5,000 ft.		Minor uplifts in Griqualand West, Bechuanaland, and Transvaal.
	Kuip series; lavas, limestones, cherts, sandstones, arkose				
	Zoetlief series; acid lavas, shales, quartzites, conglomerates				
Witwatersrand System.	Upper Witwatersrand beds: Kimberley-Elsburg series; quartzites, grits, conglomerates and shales		24,000 ft.	Intrusion of basic dykes in S. Transvaal	Uplift over Witwatersrand.
	Upper Witwatersrand beds: Main-Bird series; quartzites, grits, conglomerates, shales, and lavas				
	Lower Witwatersrand beds: Jeppestown series, chiefly shales				
	Lower Witwatersrand beds: Government Reef series; quartzites, shales, ferruginous beds, grits, and thin conglomerates				
	Lower Witwatersrand beds: Hospital Hill series; quartzites, shales, ferruginous beds, arkose				
Swaziland System (Inter-correlation unknown).	Pongola* series: Upper Pongola beds; shales, quartzites, and conglomerates			Intrusion of Palabora Complex	Mountain building in north and west, followed by prolonged denudation.
	Pongola* series: Lower Pongola beds; quartzites, phyllites, lavas				
	Abel's Kop beds	Schists, limestones, banded ironstones		Intrusion of gneisses, etc., of north and west of the Cape Province and the Transvaal and Natal	
	Kheis series: Wilgenhout Drift beds; sedimentary and volcanic rocks				
	Kheis series: Kaaien beds; quartzites and schists				
	Kheis series: Marydale beds; sedimentary and volcanic beds				
	Kraaipan series; schists, ferruginous cherts, and volcanic rocks				
	Moodies series; ferruginous rocks, quartzites, schists, and conglomerates of Barberton and Pietersburg districts		25,000 ft.		
	Schists of sedimentary and volcanic origin in Namaqualand				

* The Pongola series may belong to the Witwatersrand system.

E.—EARTHQUAKES AND EARTH TREMORS IN THE UNION.*

There are certain portions of the earth which are subject to the occurrence of great earthquakes. Such regions of seismic instability are Japan, the west coast of North and South America, and Italy. The sub-continent of South Africa is, however, considered to be particularly free from any great seismic instability. There is no recent record of any world-shaking earthquake having originated in South Africa. But within the borders of the Union there are quite a number of regions where earthquakes of a very light character originate. Such regions are the Waterberg district of the Transvaal, the northern portion of Zululand and the Piet Retief district, the southern portion of the Orange Free State, the Cape Peninsula, and the vicinity of Kokstad in Griqualand East. In these areas light shocks are not infrequently felt, but in the majority of cases they are only just discernible locally as a rumble or a vibration lasting only for a few seconds, and have not done any material damage.

On the 20th February, 1912, an earthquake occurred which was felt almost all over the Union. The centre of this shock was found to be in 25° 6′ east longtitude, 29° 45′ south latitude, i.e. near Koffiefontein in the Orange Free State. In the neighbourhood of this town many farm buildings were completely destroyed, and as far away from the centre of the shock as Kimberley, cracks were formed in the walls of buildings. Many other shocks of less intense nature have also been felt in this region.

On the 5th August, 1909, there was a rather severe shock in the northern Zoutpansberg, which was felt as far away as Bulawayo on the one side and Johannesburg on the other. No actual damage was done by this shock, although considerable alarm was created at the Seta Diamond Mine, which was near the centre of the disturbance. The most recent South African earthquake occurred on the 25th November, 1924, at 4.31 a.m. The centre of this disturbance was near Warmbaths in the northern Transvaal. Again this earthquake was not severe enough to cause any material damage.

In February, 1908, considerable interest was aroused in seismological questions by the occurrence on the Witwatersrand of a series of local earth tremors. In order to obtain additional information as to the origin of these shocks, i.e. whether they were truly tectonic or whether they were to be attributed to the extensive gold-mining and water-pumping operations taking place on the Witwatersrand, seismographs of the Wiechert type were installed at the Union Observatory in 1910. The evidence of the seismograph records was to the effect that these shocks were essentially local in character and were not to be classified as true tectonic earth movements. From 1908 these local tremors increased steadily in frequency until 1917. From that year the annual frequency of the shocks has not changed very greatly: on the average about 236 tremors, of sufficient intensity to be noticeable by residents on the Witwatersrand, are now felt each year. Several Commissions have been held with the object of investigating the causes of these tremors, and it is now generally held that they are the almost inevitable results of mining operations on an extensive scale. Such tremors are not peculiar to the Witwatersrand gold mines, but are also experienced in other mining areas, e.g. the Indian goldfields.

In spite of the frequent occurrence of earth tremors on the Witwatersrand, very little damage, apart from accidents actually in the mines, can be directly attributed to them. There have been a few cases of buildings being cracked or chimneys thrown down, but these have been near mining property, where slow subsidence of the ground has probably contributed to the weakening of buildings. The greater part of Johannesburg is not undermined at all, and here no damage has been done. Since it has been recognized that mining operations are the ultimate cause of the tremors, certain modifications in the methods of mining have been introduced with a view to reducing the tendency for tremors to occur and minimizing their effect. Thus it is confidently anticipated that the local tremors will not increase in violence and that their occurrence need not be any cause for alarm.

F.—A SURVEY OF THE MEDICINAL SPRINGS OF SOUTH AFRICA:†

Their Economic and Scientific Interest.

1. **General.**—The majority of the older countries regard their medicinal springs as real assets, worthy of scientific investigation and commercial exploitation. In many of these countries medical guides to the principal spas are issued, books of reference containing such information as may interest the physician, the chemist, and even the prospective visitor. Recently an International Society of Medical Hydrology has been established, the main object of which is to encourage in all countries the clinical and experimental study of the action of natural waters on the body, both internally and externally.

In South Africa little public or scientific interest is taken in the subject, although there are in this country some seventy springs known or reputed to be endowed with medicinal virtues. Many valuable data concerning them are in existence, but no effort has been made

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† Contributed by M. M. Rindl, D.Sc. (Eng.), Professor of Chemistry, Grey University College, Bloemfontein.

to collect and correlate them. Some of the information is recorded, but much of it has never found its way into print. The writer of this article made an attempt some years ago to put together all the available facts, incomplete and fragmentary as they are, in a perspicuous form, with the double object of placing on record such work as has been done and of stimulating interest by showing what still remains to be done.*

Mineral springs are characterized by a high temperature, or by the presence in them of some particular constituent not usually found in ordinary water, or of large quantities of dissolved mineral matter. The term mineral spring is often regarded as synonymous with medicinal spring. But there are many mineralized springs which are not endowed with therapeutic properties, and many medicinal waters of high repute are, chemically speaking, nearly pure water. Of the numerous sulphur springs and salt (brak) waters of our country, very few can claim recognition as medicinal springs. The efficacy of a spring cannot be deduced from, or expressed entirely in terms of, its percentage chemical composition. Co-operation of the medical man and the chemist is essential.

The usual saline constituents of mineral waters are the chlorides, bromides, iodides, sulphates, carbonates, bicarbonates, and sulphides of sodium, potassium, lithium, calcium, magnesium, and iron. Others are occasionally found in traces, but their inclusion in the above list seems superfluous, as they are not credited with any medicinal properties. The gases usually found are carbon dioxide, sulphuretted hydrogen, oxygen, nitrogen, and radium emanation, the importance of which is universally recognized, although its precise effect is still shrouded in mystery.

The mineral constituents of springs are dissolved out of the rocks over which the springs flow or through which they percolate. Often a series of complex chemical reactions takes place. If highly oxygenated waters come into contact with pyrites enclosed in limestone, both ferrous sulphate and sulphuric acid are formed. This sulphuric acid acts on the limestone, with the result that the water becomes charged with carbonic acid gas. Carbon dioxide may also be derived from subterranean accumulations of volcanic origin or from the decomposition of organic matter. If this oxidation process takes place in the case of pyrites enclosed in dolomitic rocks, the conditions for the formation of purging waters are given. If the sulphuric acid, the formation of which has just been referred to, acts on alkaline silicates, glauber salt is formed. Highly carbonated water percolating through limestone contains calcium bicarbonate in solution and so forth. Many springs at their point of discharge give rise to co-called sinter deposits. Some of the carbon dioxide of the bicarbonates of calcium and iron diffuses into the atmosphere, leaving deposits of insoluble calcium and iron carbonates. This iron carbonate is often further oxidized to ferric hydrate, which is found encrusting the " eyes " of all chalybeate springs.

The high temperature of many mineral springs is ascribed by some to the internal heat of the earth, by others to the thermal effect of the chemical reactions referred to above, by others again to the generation of heat in consequence of the shearing movements of the earth's crust. Controversies are still raging about the extent to which each of these factors is called into play.

Mineral springs seem to abound in volcanic districts and in strata that have been considerably bent and crumpled. But that their occurrence is not limited to such formations will appear from the geographical positions of our South African springs.

Within the scope of an article of this kind there is no room for a discussion of the therapeutic properties of mineralized waters, particularly as the subject is here treated from the chemical point of view. Moreover, this aspect of the problem can only be done justice to by a medical man who has made a special study of hydrology. Whilst the writer of this article can lay no claim to any knowledge of medical hydrology, he feels justified in calling attention to a point which is not sufficiently appreciated by proprietors of medicinal springs in this country. It is generally recognized elsewhere that systematic dieting, proper exercise, and cheerful surroundings are an essential part of the cure at a watering-place, and that competent medical advice and guidance are necessary with regard to the method of taking the waters, etc. Whatever the potential virtues of the South African springs, the majority of them can never hope to claim serious recognition as spas as long as they are carried on under the same primitive conditions as at present. Very few of them have even adequate accommodation for patients, and if visitors are compelled to camp out in tents and wagons, the beneficial effect of the waters is likley to be nullified by the conditions of living.

Whilst chemical investigation undoubtedly represents the first step in the examination of a water, prolonged physiological observation is required to establish the conditions in which the use of a particular water is indicated. Chemical knowledge of the South African springs is most fragmentary and woefully inadequate, and the knowledge of their therapeutic properties is even more so. Unfortunately, even the little information which is available is often not considered when a watering-place is selected, with the result that patients are often sent to springs which are not suited to their particular ailments.

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* *South African Journal of Science*, June, 1917; *South African Medical Record*, February, 1918; and *South African Journal of Science*, November-December, 1918.

2. **Classification.**—The following basis has been adopted in the classification of South African mineral springs :—

Group I. Indifferent Waters.—These contain only very small quantities of solid substances in solution. Some of them, as a matter of fact, contain less saline constituents than many ordinary drinking waters. But they all have a higher temperature than the average temperature of the atmosphere, and many of them contain dissolved nitrogen, the presence of which seems to be connected with their medicinal value. Their use is indicated particularly in rheumatism, gouty affections, and inflammations. Many of them are radio-active. Typical European examples of this class are Buxton in England, Pfaefers and Ragaz in Switzerland, Teplitz in Bohemia, and Gastein in Austria.

Group II. Earthy Waters.—These are characterized by the presence of large quantities of the carbonates and sulphates of lime and magnesia. Their use seems to be indicated mainly in cases of urinary trouble. Wildungen in Germany, Bath in England, and Bormio in northern Italy belong to this class. Hitherto no springs of this class have been found in South Africa.

Group III. Alkaline Waters.—The principal constituents are carbonate and bicarbonate of soda with free carbon dioxide, and sometimes also sulphate and chloride of sodium. They are sub-divided as follows : (*a*) Carbonated waters with small quantities of solid constituents, but not less than 400 c.c. of carbon dioxide per litre. Some of the well-known continental table waters, like Apollinaris and Giesshuebler Sauerbrunn, belong to this class. Their action seems to be simply a mild stimulating effect on the digestion. (*b*) Simple alkaline waters with more carbonate and plenty of free gas, but very little of other constituents. Examples : Vichy in France and Fachingen in Germany. (*c*) Muriated alkaline waters, containing sodium chloride in addition to sodium carbonate and bicarbonate. Examples are : Mont Dore in France and Ems and Selters in Germany. The muriated alkaline waters are frequently used in cases of bronchial catarrh. (*d*) Alkaline springs with sulphate of soda : Franzensbad, Marienbad, and Karlsbad in Bohemia. The use of alkaline waters is indicated in digestive complaints of all kinds. They are frequented by people suffering from obesity with its concomitant troubles.

Group IV. Iron or Chalybeate Springs.—These usually contain iron in the form of bicarbonate, rarely as sulphate. Their use is recommended in cases of anaemia, chlorosis, nervous troubles, and venereal diseases. Tunbridge Wells in England and Spa in Belguim are typical examples.

Group V. Salt Springs.—These contain mainly sodium chloride and small quantities of the chlorides of calcium and magnesium, and are used in cases of scrofula, rachitis, chronic skin affections, rheumatism, gout, heart and nerve troubles. Besides being used as baths and taken internally, the waters are sometimes atomized, i.e. the air is impregnated with finely divided particles of water and salt. Homburg, Kissingen, Baden-Baden, and Reichenhall, all in Germany, are well-known representatives of this type. The group is sub-divided into weak and strong salt waters, and into brine springs containing bromine and iodine.

Group VI. Sulphur Springs.—These contain sulphides (mainly of sodium) and sulphuretted hydrogen. They are used for gout and rheumatism, cutaneous and hepatic affections. Examples are Aix-la-Chapelle in Germany, Aix-les-Bains (Savoy) and Cauterets in the Pyrenees.

Before passing on to the discussion of the individual South African springs, the writer desires to make it clear that in this general system of classification no attempt has been made to give a complete list of all the sub-groups, and that the list of disorders and diseases enumerated under each group is by no means exhaustive.

3. **Description of Individual South African Springs.**—*Group I. Indifferent Waters.*—Of the springs belonging to this class, that at Brandvlei, near Worcester, already attracted the attention of early travellers. Gumprecht, in " Die Mineralquellen auf dem Festlande von Afrika " (1851), gives an enthusiastic and detailed account of its curative powers. Burchell, in his book " Travels in the Interior of Southern Africa " (1811), calls attention to the uncommonly high temperature of the water, 145° F. (63° C.), and states that the course of the stream flowing out of the pond surrounding the springs can be traced for over a mile by the cloud of steam hovering over it. The spring seems to have fallen into discredit in recent times, and the primitive bath-house that once stood there has been allowed to fall into ruins. Although indifferent waters are usually characterized by a high temperature, this spring is interesting as having a higher temperature than all the European waters of this class with the sole exception of Plombiéres-les-Bains, Departement Voges, France.

The only spring of this group which has attained to more than a local reputation is the one at Montagu, Cape Province. This spring appears to have been known to, and frequented by, the Hottentots and Bushmen before the advent of the white man, but little was done to make it attractive until it was acquired by the New Cape Central Railway in 1907. The

company erected a bath-house, a swimming-bath, and a well-appointed hotel. Radio-active peat baths were also installed. The water, which issues at a temperature of 112·3° F. (44·5° C.), is stated to be strongly radio-active. A considerable quantity of gas bubbles up with the spring, consisting of a mixture of oxygen and nitrogen with a little carbon dioxide. Dr. C. H. Muller, who has had twenty-one years of experience at the Montagu Baths, states that he has found the waters most beneficial in cases of rheumatism (subacute, chronic, and gonorrhoeal), rheumatoid arthritis and gout, skin diseases (chronic eczemas and psoriasis), neuritis and sciatica, arteriosclerosis. Cases of malta fever are also greatly benefited.

The other springs belonging to this group which are reputed to be endowed with therapeutic properties are Goudini, near Worcester, Olifants River, 45 miles south of Clanwilliam, the Warm-Waterberg spring near Barrydale, and the spring at Tarka Bridge, district Cradock. They are only visited by people living in the immediate neighbourhood, or are not exploited at all.

Group III. Alkaline Waters.—The most noteworthy springs in this class are probably those at Windhoek in South-West Africa. At Gross-Windhoek there are three springs of temperature 70–73·5° C. which enjoyed considerable reputation for their medicinal virtues even before the advent of the white man. At Klein-Windhoek, which is separated from Gross-Windhoek by a low range of hills, there are also several medicinal springs of lower temperature (45–55° C.), but similar to those of Gross-Windhoek with respect to their chemical constituents, and also endowed with therapeutic properties. The high temperatures show the Windhoek springs to be of deep-seated origin. They rise from micaceous schist. The balance of evidence is in favour of the assumption that springs of this type are "Juvenile Waters," formed by the liberation of water vapour or even hydrogen under high pressure from the magma. Medical men who have experience of the therapeutic action of the Windhoek springs recommend their use for digestive and metabolic disorders, respiratory catarrhs, and diseases of women.

The spring at Warmbaths, northern Transvaal, has a temperature of 140° F. (60° C.) and is described as mildly alkaline. The bathing establishment, which is the property of the Transvaal Provincial Government, contains a swimming-bath and a paddling-pool for children, and provision is made for vapour and mud baths. The water is purgative, and is reputed to be efficacious in gout, rheumatism, and sciatica. This spa has been gaining in popularity during recent years, the daily average of patients recorded during the summer months being well over a thousand.

There are, in addition, a number of alkaline waters in Rhodesia, and the spring at Badplaats, or Doornpoort, district Carolina, Transvaal, appears to be a sulphated alkaline water. At all of these the conditions of living and the provision for bathing are most primitive.

Group IV. Iron or Chalybeate Waters.—The best known of the South African chalybeate spas is Caledon. The history of the Caledon baths dates back to the early days of the Dutch occupation, but there is reason to believe that the aborigines were acquainted with its healing properties even before that time. One of the first authentic accounts of the waters is found in a book by Francois Valentijn on the Dutch East India Company's possessions. This was printed in Amsterdam in 1724, and in it he mentions the efficacy of the hot mineral springs of Caledon. Vaillant, in his book "Reize in de Binnenlanden van Africa, langs de Kap de Goed Hoop in den jaren 1750–55," mentions the high esteem in which these baths were held in those far-off days. The Dutch East India Company was fully aware of their value, and many officials invalided from the East derived new strength and health from their healing waters. Subsequent to the taking over of the country by Great Britain many English East India officers visited the baths. The opening of the Suez Canal, however, turned away the tide from the East, and the springs, falling into incompetent hands, were for a long time almost forgotten. In more recent times, however, an up-to-date sanatorium has been built, where manipulation and swimming and electric baths are provided. The water is radio-active and hyperthermal (49° C.). In point of temperature the water was almost unique until the Zwartkops borehole was sunk, the water of which is fully five degrees hotter. As a matter of fact, there are very few European chalybeate springs of higher temperature. Dr. G. W. B. Daniell, who was for many years resident at Caledon, states, in a paper read before the Second Medical Congress of South Africa in 1893, that the waters have been proved by experience to be invaluable in the following morbid conditions: (1) Anaemia, malarial cachexia, chlorosis, convalescence from acute diseases of any kind; (2) scrofula; (3) rheumatism; (4) gout and rheumatic gout; (5) neuralgia, sciatica, chorea, hysteria: (6) Bright's disease; (7) diseases of women; (8) chronic diarrhoea; (9) skin diseases; (10) certain diseases of the respiratory tract; (11) liver diseases; (12) surgical diseases. Subsequent experience has shown that this summary needs little or no modification.

The Zwartkops spring is a quite exceptional hyperthermal water, reported to be highly radio-active. It issues from a borehole in the Uitenhage beds at a depth of 3,600 feet, and

was struck when drilling for petroleum in 1909. Its temperature is 54·5° C. The composition of the gas issuing with the water shows carbon dioxide, oxygen, and nitrogen, with small amounts of hydrogen, helium, and neon. There is a small establishment for treatment, and gastro-hepatic and renal disorders are among the cases that are reported to derive benefit.

Whilst the waters of Caledon and Zwartkops contain the iron as bicarbonate the spring at Balmoral, near Port Elizabeth, is unusual as containing the iron in the form of sulphate. Hence its bitter and astringent taste. Other springs belonging to this class are at Tooverwater Poort, near Willowmore, at Warmbad in the Olifants River bed, about 30 miles southwest of Oudtshoorn, and at Inungi in the bed of the Umzimvubu River, west of Kokstad. One of the Inungi springs is remarkable on account of its exceptionally high iron-content, which is about four times as high as that of the famous Caledon water. As this spring also has constituents which make it partake of the nature of both earthy and alkaline waters, it certainly deserves attention.

A noteworthy feature of South African chalybeate springs is that most of them are warm. Iron springs in other parts of the world are, as a rule, cold.

Group V. Salt Springs.—In view of the large number of salt pans in the Union, particularly in the so-called " Panne-veld," i.e. the area including the districts extending from Calvinia and Fraserburg up through Gordonia, Griqualand West, and the western Orange Free State, the paucity of salt springs which are used medicinally is most extraordinary. The three salt springs known, or reputed, to be endowed with medicinal virtues are all so mildly saline that it is still an open question whether the amount of sodium chloride which they contain justifies their classification as salt springs. The best known of this group, the one at Rietfontein near the Haagenstad salt pan, about equidistant from Bloemfontein and Brandfort, lies on the eastern fringe of the area named. The other two springs of this class are on the farm De Villiersgunst, near Winburg, Orange Free State, and at Warmbad in South-West Africa.

Group VI. Sulphur Springs.—A characteristic feature of South African sulphur springs is that they are, as a rule, thermal, whilst the majority of sulphur springs elsewhere are cold or only tepid. One of the sources of the Zongala geyser in Northern Rhodesia nearly touches boiling point. The Aliwal North springs, which are sub-thermal, with a temperature of 95° F. (35° C.), issue into a small lake which is utilized as an open-air swimming-bath. In addition, there is a bath-house containing a swimming-bath at which provision is made for ordinary and electric baths. A radio-active gas, containing 94·6 per cent. of nitrogen, argon, and helium, issues from the eyes of the springs. This spa offers an instructive example of how little guidance chemical analyses are in estimating the therapeutic value of a water. These springs, which are the poorest in sulphuretted hydrogen in the country, have been proved by experience to be the most efficacious as sulphur springs.

At Malmesbury, the bath-house is the property of the municipality, and contains a swimming-bath and a number of rooms with porcelain-tiled baths. It is served by faintly sulphuretted and chlorided sub-thermal water at 91° F. (33° C.).

The springs at Lilani in Natal have an average temperature of 38° C., and the water is reported to be radio-active and to contain sulphite and thiosulphate ions in addition to a little sulphuretted hydrogen. It is claimed to be efficacious in cases of rheumatism, gout, sciatica, cutaneous diseases, malaria, and obesity. A sanatorium has been erected, and provision is made for open-air bathing as well as for sand and mud baths.

Machadodorp in the Transvaal has a group of highly radio-active springs of an average temperature of 28° C. Chemically these springs are interesting as being the only ones among the better known sulphur waters in the country which contain alkaline sulphides in addition to sulphuretted hydrogen. Seven eyes are enclosed by a cement structure and roofed over to provide a kind of basin from which bathing cells are fed. The erection of a proper establishment is contemplated.

Of the fifty-six medicinal springs about which sufficient information is available to enable them to be classified, fully one-half belong to this group. A few of them are patronized by the farmers living in the immediate neighbourhood. Several are held in high esteem by the natives. Where there are any bathing facilities at all these are of a most primitive nature. Therapeutically, practically nothing is known about the majority of them, and chemically they offer little of interest so far as the available information goes. But geologically a number of the Rhodesian springs of this group can claim more than ordinary interest on account of their high temperature. The maximum temperature of the Zongala geyser is 97° C., that of the Goa geyser 63° C., whilst the water of the Kapessa hot spring is practically boiling. They all lie in a limited area between 16° and 18° south latitude and 27° and 29° east longitude. In the same area in the Sebungwe district, there is also a spring which is practically boiling, and which issues out of a hole in an isolated rock, according to the description of the natives " with a noise like a small steam engine working." From the fragmentary data available this spring, however, appears to be a salt spring.

4. **Natural Table Waters.**—In the classification as adopted elsewhere there is no independent group of table waters. The majority of the well-known European table waters come from places which have a reputation as health resorts, and consequently these table waters are classified under the different groups of medicinal springs. Moreover, table waters differ in composition to such an extent as to belong to different groups. The majority of them, however, belong to the various sub-groups of alkaline waters. As the springs supplying the South African table waters are not frequented as health resorts it has been deemed desirable for the sake of simplicity to group all of them under a separate class. The best known of these, the Van Riebeek spring, issues from the Tygerberg, between Bellville and Durbanville. The bottling department of the Van Riebeek Natural Mineral Water Co., Ltd., is at Bellville Station, and the water is conducted thither from its source by 31,000 feet of tin piping. The source of the spring from which the Vasco waters are obtained is also on the Tygerberg. The Driebaden spring is near Jagersfontein, whilst the Seltzbach water comes from a spring at Van der Merwe, a siding on the Delagoa line, twenty-one miles from Pretoria.

5. **Conclusion.**—The original publications on which this article is based are the outcome of a search, undertaken as a result of the acute shortage of potash during the war, for springs sufficiently rich in potash to be of economic value. Whilst the investigation failed to establish the existence of potash deposits in South Africa, the writer was struck by the number and properties of the springs described as being endowed with medicinal virtues. The endeavour to correlate the data and to classify the springs showed how incomplete the available information was, and how little interest was taken in a valuable asset. But a few interesting facts emerge from a comparison of the springs, not the least interesting of which is the high temperature of many of them and their geographical distribution. The majority of the known medicinal springs in South-West Africa lie in a zone running through the middle of the country from north to south practically through its entire length. In addition to the medicinal springs there are several not used therapeutically but of high temperature in this zone: Gross-Barmen 64–65° C., Windhoek 70–73·5° C., Rehoboth 53° C., Klein-Barmen (Otji Katiti) 61–63° C., Omapiu 61° C., Omburu given variously as 61° and 77° C., Warmbad 38° C. A prolongation of the line strikes a number of the springs in the Cape Province, namely, Clanwilliam 42–43 °C., Goudini 40° C., Brandvlei 62° C., and Caledon 49° C. The majority of the remaining hot springs in the Province lie on a line running from Caledon more or less parallel to the coast as far as Port Elizabeth, namely Montagu 45° C., Barrydale (no temperature recorded, but said to be uncomfortably hot), Warmbad (Olifants River) 45·6° C., Tooverwater Poort 49° C., and Zwartkops 54·5° C. It might be interesting to ascertain whether this regularity of grouping is not something more than mere accident. There are several problems of a similar nature in connexion with the South African medical springs which are of sufficient scientific interest to merit investigation, and which might well lead to results of economic value.

§ 8. Area of the Union.

1. **Area.**—The total area of the Union is 472,347 sq. miles. The area of each Province is given hereunder. The area of each magisterial district in the Union will be found in the District Summary.

AREA OF PROVINCES.

Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
276,966	35,284	110,450	49,647	472,347

The above figures reflect corrections which were made necessary owing to re-computation of the Orange Free State area by the Surveyor-General of that Province in 1924, based on new topographical maps embodying more recent surveys. The detailed adjustments are shown in the District Statistical Summary, and the revised figures are used in Chapter XXIV and other parts of this *Year Book* (in the computation of densities, etc.).

2. **Comparison with other Countries.**—Particulars are given hereunder as to the total area of the Union in comparison with the area of each self-governing British Dominion, and the area of certain other countries in Europe, America, Asia, and Africa :—

AREA OF UNION AND VARIOUS COUNTRIES.

Area of Union..... 472,347 square miles.
South-West Africa..... 322,450 square miles.

Country.	Sq. Miles.	Country.	Sq. Miles.
GREAT BRITAIN.....	89,047	EUROPE—(*contd.*)—	
IRELAND—		Greece.....	41,933
Northern Ireland.....	5,237	Switzerland.....	15,976
Irish Free State.....	26,592	Netherlands.....	12,648
		Belgium.....	11,373
BRITISH DOMINIONS—		ASIA—	
Canada.....	3,729,665	China (with dependencies)	4,277,170
Australia.....	2,974,581	Japan (with Morea, Formosa, etc.).....	260,738
British India.....	1,093,074		
Rhodesia—		NORTH AMERICA—	
Southern and Northern..	450,000	United States.....	2,970,230
Kenya.....	200,000	Mexico.....	767,005
Newfoundland (with Labrador).....	162,734		
New Zealand (with dependencies).....	104,751	SOUTH AMERICA—	
Tanganyika Territory.....	384,000	Brazil.....	3,292,991
		Argentine Republic.....	1,135,840
EUROPE—		AFRICA—	
Germany.....	183,381	Egypt and Soudan.....	1,347,701
France.....	212,659	Congo State.....	909,654
Spain.....	194,783	Angola.....	484,800
Sweden.....	173,035	Tripoli.....	400,000
Norway.....	124,130	Algeria.....	343,500
Italy.....	110,659	Portuguese East Africa..	293,400
Denmark (with Iceland)..	55,348	Madagascar.....	228,000
Portugal.....	35,490	Cameroons.....	191,130

§ 9. The Plant Geography of South Africa.

A special article on the Plant Geography of South Africa was published in previous ssues (Nos. 1 to 4) of this *Year Book* and in a revised form in the fifth and sixth issues. The author was Dr. I. B. Pole Evans, C.M.G., M.A. (Cantab.), D. Sc., F.L.S., Chief of the Division of Botany and Plant Pathology in the Department of Agriculture and Director of the Botanical Survey of South Africa. Owing to exigencies of space it has been found impossible to repeat this article in the present issue of the *Year Book*.

§ 10. Economic Plants of South Africa.*

1. **General.**—The work undertaken by the Division of Botany in the investigation of plants of possible economic value is more than of mere scientific interest, as to-day increasing attention is being paid to the exploitation of plants as sources of raw material utilized in various branches of manufactures. Man is not only dependent on plants, either directly or indirectly, as food ; in every phase of human activity parts of plants, or some plant produce, enter into use.

The investigation of the properties of our native plants may, therefore, lead not only to the discovery of products which are in use to-day, but may also possibly bring to light

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products which may suggest new channels for industry. This work is being steadily conducted by the Division of Botany, and much important data has been collected, which is at the disposal of farmers or commercial men interested in the growing or utilization of particular plant products. The list given below details some of the more important plants investigated by the Division. No mention is made, however, of native timbers, as that subject is more suitably dealt with by the Forest Department, nor of the poisonous plants, which are being dealt with elsewhere. The list is arranged alphabetically in families, with the species under each family. This was done for the sake of convenience in description and without reference to the grouping into plant products.

In general, the products derived from plants may be grouped under the following heads (after Willis) :—

(i) GUMS, RESINS, CAOUTCHOUCS, GUTTAPERCHAS, ETC.—These products arise from the drying or coagulation of saps or other excretions or are obtained from them by distillation or otherwise (*Landolphia Kirkii*, var. *delagoensis* ; *Combretum erythrophyllum* ; *Euryops multifidus* ; *Othonna arbuscula* ; *Acacia Karroo*).

(ii) OILS.—(*a*) Fixed oils (*Sclerocarya caffra* ; *Ricinodendron Rautanenii* ; *Bauhinia esculenta* ; *Trichilia emetica* ; *Myrica cordifolia* ; *Ximenia caffra* ; *Calodendron capense* ; *Pappea capensis*) ; (*b*) volatile oils (*Mentha longifolia* ; *Barosma betulina*).

(iii) DYES AND TANNING-STUFFS.—*Euclea natalensis* ; *Jatropha Zeyheri* ; *Acacia Benthami* ; *Elephantorrhiza Burchellii* ; *Rubia cordifolia* ; *Osyris abyssinica*.

(iv) FIBRES.—*Asclepias fruticosa* ; *Flagellaria indica*, var. *guineesis* ; *Bobartia spathacea* ; *Abutilon tortuosum* ; *Hibiscus cannabinus* ; *Sida rhombifolia* ; *Hyphaene crinita*.

(v) DRUGS.—*Mesembrianthemum crystallinum* ; *Catha edulis* ; *Artemisia afra* ; *Athrixia phylicoides* ; *Brachylaena elliptica* ; *Leyssera gnaphalioides* ; *Othonna arbuscula* ; *Aspalathus cedarbergensis* ; *Cyclopia brachypodia* ; *C. genistoides* ; *C. tenuifolia* ; *Aloe ferox* ; *Barosma betulina*.

(vi) EDIBLE PRODUCTS (including well-known stock plants).—*Mesembrianthemum crystallinum* ; *M. floribundum* ; *Galenia africana* ; *Tetragonia arbuscula* ; *Sclerocarya caffra* ; *Carissa grandiflora* ; *Salsola aphylla* ; *Salsola Zeyheri* ; *Atriplex halimus* ; *Pentzia incana* ; *Acanthosicyos horrida* ; *Cucumis metuliferus* ; *Doryalis caffra* ; species of grasses : *Acacia Giraffae* ; *Sesbania cinerascens* ; *Portulacaria afra* ; *Vangueria infausta* ; *Chrysophyllum magaliesmontanum* ; *Minusops obovata*.

(vii) MISCELLANEOUS.—*Helichrysum vestitum* (flower heads) ; *Abrus precatorius*, *Afzelia quanzensis*, *Erythrina Zeyheri* (ornamental seeds).

2. **Classification of Economic Plants.**—(*a*) AIOZACEAE.—A large family of plants containing about 500 species. Represented in South Africa by the genera *Mesembrianthemum* (vygies) and allied genera, mostly all succulent plants, *Aizoon*, *Tetragonia*, etc.

(i) *Mesembrianthemum crystallinum* L. (Brakslaai).—A prostrate succulent herb, covered with white glittering papillae. When young, the plant is a good stock-food. The plant is also of interest medicinally and has been investigated by the Wellcome Bureau of Scientific Research.

(ii) *Mesembrianthemum floribundum*, Haw.—A prostrate succulent herb with small cylindric leaves. Found abundantly in carroid areas where the soil is not perceptibly "brak" (alkaline). Affords excellent pasture for small stock.

(iii) *Galenia africana*, Linn. (Kraalbos).—A small shrub with opposite linear leaves. Eaten by stock in times of drought.

(iv) *Tetragonia arbuscula*, Fenzl.—A much branched small shrub. A good stock-food.

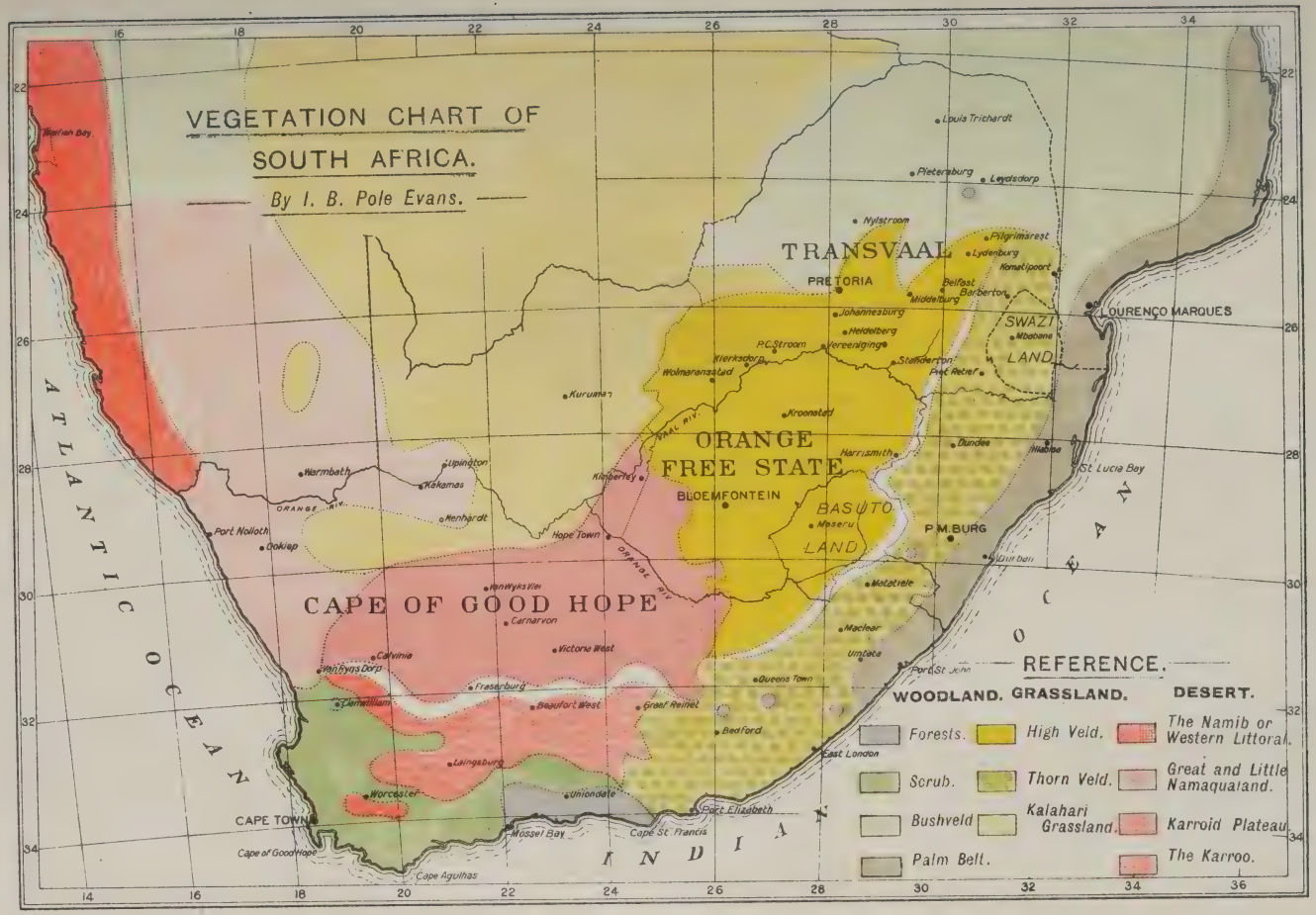
(*b*) ANACARDIACEAE.—A large family of plants with over 500 species found in all tropical countries. Well represented in South Africa by the genus *Rhus*. The "cashew-nut" (*Anacardium occidentale*) is a well-known member of the family.

(v) *Rhus* spp.—Shrubs or small trees, several species of which form food for stock in times of drought.

(vi) *Sclerocarya caffra*, Sond. (Marula or Maroola).—A large tree found in the Bushveld and the Low Country. It bears a succulent fruit about the size of a small plum with a pleasant acid taste. The fruits make an excellent jelly, and are also used by the native in preparing a fermented drink. The seeds contain oil.

(*c*) APOCYNACEAE.—A large tropical family of trees and shrubs containing over 1,000 species. Several species are well-known poisonous plants and some species of *Landolphia* yield rubber.

(vii) *Carissa grandiflora*, A.D.C. (U'Amatungula, Natal Plum).—A tall shrub, 10 to 20 feet high, with forked spines bearing a large scarlet fruit, used for making jams and jellies and also used as a dessert. Frequently grown as a hedge plant.


VEGETATION CHART OF SOUTH AFRICA.
By I. B. Pole Evans.
TRANSVAAL
PRETORIA
ORANGE FREE STATE
BLOEMFONTEIN
BASUTO LAND
SWAZI LAND
CAPE OF GOOD HOPE
ATLANTIC OCEAN
INDIAN OCEAN
Walfish Bay
Louis Trichardt
Pietersburg
Leydsdorp
Nylstroom
Pilgrimsrest
Lydenburg
Komatipoort
Belfast
Barberton
Middelburg
Johannesburg
Heidelberg
P.C.Stroom
Vereeniging
Klerksdorp
Standerton
Wolmaransstad
Potchefstroom
Kuruman
Kroonstad
Harrismith
Dundee
Vryheid
St. Lucia Bay
LOURENÇO MARQUES
Mbabane
Warmbath
Upington
Kakamas
Kimberley
Henhardt
Port Nolloth
Ookiep
Hope Town
Orange Mouth
Van Wyks Vlei
Carnarvon
Calvinia
Victoria West
Van Rhyns Dorp
Tulbagh
Piketberg
Tulbagh
Worcester
Ceres
Laingsburg
Fraserburg
Beaufort West
Graaf Reinet
Bedford
Queens Town
Umtata
Matatiele
Maclear
Port St John
East London
Port Elizabeth
Uniondale
Mossel Bay
Cape St. Francis
CAPE TOWN
Cape of Good Hope
Cape Agulhas
P.M.BURG
Meseru
Orange R.
Vaal R.
REFERENCE.
WOODLAND.
GRASSLAND.
DESERT.
Forests.
Scrub.
Bushveld
Palm Belt.
High Veld.
Thorn Veld.
Kalahari Grassland.
The Namib or Western Littoral.
Great and Little Namaqualand.
Karroid Plateau
The Karroo.

(viii) *Landolphia Kirkii*, Dyer, var. *delagoensis*, Dewevre.—A woody climber found in Zululand and said to yield an excellent rubber.

(*d*) ASCLEPIADACEAE.—A tropical and subtropical family with over 1,800 species. Represented in South Africa by the genus *Asclepias* and *Stapelia* (carrion-flowers), besides many other genera. Some species are known to be poisonous to stock.

(ix) *Asclepias fruticosa*, Linn. (Melkbos).—A small bush up to 4 feet high, containing a milky juice in the branches. The stems contain an excellent fibre, but no satisfactory method has been found for extracting the fibre. The large inflated fruits contain seeds covered with long silky hairs, suitable as a stuffing for cushions, etc.

(*e*) CELASTRACEAE.—A family of trees and shrubs with over 400 species, found mostly in the tropics. Well represented in South Africa by the genus *Gymnosporia*. A few species are of minor importance as timber in the native forests.

(x) *Catha edulis*, Forsk. (Bossiemans Tee).—An unarmed shrub with opposite leaves, also found in tropical Africa. The leaves which contain the alkaloid catine are used in the same way as the ordinary tea.

(*f*) CHENOPODIACEAE.—A cosmopolitan family with over 500 species. The family is fairly well represented in Australia, where many of the species form valuable stock-food plants. Many of the species recorded from South Africa have been introduced.

(xi) *Salsola aphylla*, Linn. (Brak ganna).—A small shrub with minute, closely packed leaves. Found in the arid areas of South Africa and forms a very important stock-food plant.

(xii) *Salsola Zeyheri*, Schinz. (Koolganna or Blomkool-ganna).—Similar to the above with more or less the same distribution. A very valuable stock-food plant.

(xiii) *Atriplex halimus*, Linn. (Brak-bos, Vaalbrak, Soutbos).—One of the indigenous "salt-bushes" is found over considerable areas on ground impregnated with soda. Like the two preceding plants this is an important stock-food.

(*g*) COMBRETACEAE.—Species over 450 found in Africa, South America, the Philippine Islands, and Australia. In South Africa it is represented chiefly by the genus *Combretum*. Several species yield good timber for local use.

(xiv) *Combretum erythrophyllum*, Burch. (Bush Willow).—A tall shrub or small tree bearing four-winged fruits, usually found growing on the banks of streams. A gum is exuded from the stem and is used as a substitute for gum tragacanth.

(*h*) COMPOSITAE.—A cosmopolitan family of over 13,000 species of very various habit. The dominant family of plants in South Africa. Some species, such as *Matricaria nigellaefolia*, *Senecio latifolia*, *Senecio Burchellii*, are known to be poisonous.

(xv) *Artemisia afra*, Jacq. (Wilde-als; Wormwood).—A greyish subherbaceous shrub. Plentiful in some parts of the Union. Employed locally in the same manner as the European *A. absinthium*.

(xvi) *Athrixia phylicoides*, D.C. (Kaffir Tea).—A much branched shrub with slender branches and lanceolate leaves, white on the under surfaces. An infusion of the dried leaves is used locally as a tea.

(xvii) *Brachylaena elliptica*, Less. (Bitterblaar).—An arborescent shrub found mostly in the eastern districts. The leaves are used medicinally in cases of diabetes.

(xviii) *Eriocephalus spinescens* (Kapok Bossie or Snowbush).—A much branched spinescent dwarf scrubby bush found in the Karroo. Is considered a good stock-food plant.

(xix) *Euryops multifidus*, D.C. (Harpuisbos).—A shrubby bush about a foot high, found in the north-western districts of the Cape Province. The branches exude a resin.

(xx) *Helichrysum vestitum*, Less. (Sewejaartjies; Everlastings).—A subherbaceous plant, 1 to 2 feet high, densely woolly. Found in the south-western area of the Cape Province. The flower heads are exported for ornamental purposes.

(xxi) *Leyssera gnaphalioides*, Linn. (Geelblommetjies Tee).—A small shrub about 1 foot high, with needle-like leaves. Common in the south-western area of the Cape Province. An infusion is made from the dried leaves and used as a tea.

(xxii) *Othonna arbuscula*, Sch. Bip. (Nu-nu).—A tall shrub found in Namaqualand. The stems exude a resin which may prove to be of some medicinal value.

(xxiii) *Pentzia incana*, O. Kuntze (Skaapbos).—A small bush of the Karroo with linear leaves. One of the most important of the native stock-food plants.

(*j*) CUCURBITACEAE.—Usually prostrate or climbing herbs furnished with tendrils. A tropical family of over 700 species. Represented in South Africa by many kinds of wild melons. Several species, such as watermelon, pumpkin, and cucumber, are cultivated. One species, *Melothria punctata*, is known to be poisonous to stock.

(xxiv) *Acanthosicyos horrida*, Welw. (Naras).—A spiny bush confined to the sand-dunes in the almost rainless region round Walvis Bay, South-West Africa. The fruits when in season form practically the sole article of diet of the natives.

(xxv) *Cucumis metuliferus*, E. Mey (Wild Cucumber).—One of the native cucumber-like plants of the Kalahari. The fruits when ripe are bright red and covered with conical protuberances. It is cultivated and the fruits used as a salad.

(*k*) EBENACEAE.—A family of trees or shrubs with about 350 species, found in all the warmer parts of the world. Many species of *Diospyros* yield the valuable wood ebony, while *D. virginiana*, L. is the cultivated persimmon. Represented in South Africa by the genera *Euclea* and *Royena*.

(xxvi) *Euclea natalensis*, A.D.C.—A shrub, 2 to 10 feet high, or small tree, found in Natal and parts of the Transvaal. The root-bark produces a dye, which is stated to make a good floor stain.

(*l*) EUPHORBIACEAE.—A large family with about 4,000 species, found in the tropics of both hemispheres. Many of the species are characterized by the presence of a milky juice in the stems. The family is well represented in South Africa by the genus *Euphorbia*.

(xxvii) *Euphorbia coerulescens*, Haw. (Soet Noorsdoring).—A succulent spiny leafless bush, 2 to 3 feet, perhaps more, in height. Found in the Karroo. This is a valuable fodder plant. Other species of *Euphorbia* are also good stock-food plants, e.g. *E. esculenta*, Marl.; *E. brachiata*, E. Mey.; *E. arrecta*, N. E. Br.; *E. hamata*, Sweet; *E. loricata*, Lam.

(xxviii) *Jatropha Zeyheri*, Sond.—A plant with a large underground root-stock from which annual stems arise. It is common in parts of the Transvaal and Orange Free State. The root-stock contains 22·4 per cent. of tannin and yields a pale-brown firm leather of good texture.

(xxix) *Ricinodendron Rautanenii*, Schinz.—A large tree, with digitately 5–7-foliate leaves, native of South-West Africa and parts of Rhodesia. The kernels of the seed yield about 57 to 59 per cent. of a bright-yellow oil of a semi-drying character.

(*m*) FLACOURTIACEAE.—A family most abundantly represented in the tropics. Species about 500; best known in South Africa by the genus *Scolopia*.

(xxx) *Doryalis caffra*, Harv. (Kei-appel, Dingaan's Appel).—A small spiny tree found native in the eastern districts. The fruits are a yellow berry, about an inch in diameter, and are used for jam-making. The plant is frequently grown as a hedge.

(*n*) FLAGELLARIACEAE.—A very small family composed of eight species, confined to the warm regions of the old world. They are robust herbs, sometimes climbing by means of tendrils at the tips of the leaves.

(xxxi) *Flagellaria indica*, Linn., var. *guineesis*, Engl. (Kanot Grass).—A tall climber with cane-like stems, commonly found in the coast belt of Natal. The stems are used for making strong baskets.

(*o*) GRAMINACEAE.—The family comprises all the true grasses, and representatives of the family are found in all parts of the world. A very important family economically, as directly and indirectly it supplies a large proportion of the food supply of mankind. Species of *Hyparrhenia*, *Andropogon*, etc., yield a suitable pulp for paper-making. One species, *Cymbopogon vallidus*, from Pondoland, is being investigated as a source of alcohol. The grasses also form the most important food for stock in South Africa.

(*p*) IRIDACEAE.—Mostly herbs with underground stems called corms. A very large family in South Africa, being represented by such well-known genera as *Watsonia*, *Gladiolus*, *Ixia*, *Moraea*, etc.

(xxxii) *Bobartia spathacea*, Ker. (Biesroei).—A plant with tough rush-like leaves and yellow flowers. Common in parts of the south-western areas of the Cape Province. It is largely used for making fruit baskets.

(*q*) LABIATAE.—A family of the warm and temperate regions, represented by about 3,400 species. In South Africa such well-known genera as *Salvia*, *Stachys*, *Plectranthus*, etc., belong to this family. Most species contain a volatile oil, and peppermint oil, lavender oil, rosemary oil, etc., are distilled from them. Many condiments, such as sage, thyme, etc., are obtained from members of the family.

(xxxiii) *Lasiocorys capensis*, Benth.—A subherbaceous plant with a deep tap-root common in many districts. The stems are browsed down by stock in times of drought.

(xxxiv) *Mentha longifolia*, Huds. (Wild Mint).—A strongly scented herb found in moist places. The leaves yield an essential oil which may possibly be used as a substitute for spearmint oil.

(*r*) LEGUMINOSAE.—A very large family, with about 11,000 species, found all over the world. In South Africa it is represented by such well-known genera as *Acacia*, *Indigofera*, *Aspalathus*, *Tephrosia*, *Rhynchosia*, etc. The family, as a whole, is an important economic one. The seeds of many form important foodstuffs for man, and many produce valuable forage crops for stock; timber, dyes, gums, oils are produced by other species.

(xxxv) *Abrus precatorius*, Linn. (Love-beans, Lucky-beans, Minnie-minnies).—A climbing plant found in the eastern coast-belt, the northern Transvaal, and Rhodesia. The seeds are red and black and are used for ornamental trinkets. They are poisonous.

(xxxvi) *Acacia Benthami*, Roch. (Ruikpeul).—A small thorny tree with bipinnate leaves. The pods are constricted between the seeds and contain tannin. They also produce a dye.

(xxxvii) *Acacia Giraffae*, Burch. (Kameeldoring; Camel's Thorn).—A large thorny tree with bipinnate leaves. The large somewhat woody pods when ground to a meal form a very nutritious feed for stock.

(xxxviii) *Acacia Karroo*, Hayne (Doringboom, Karrooboom).—A common thorn tree of the Karroo and south-eastern districts. The stems exude a gum which somewhat resembles gum-arabic. The leaves and pods also provide a good stock-food.

(xxxix) *Afzelia quanzensis*, Welw. (Mahogany Beans).—A large tree found in Rhodesia, the northern Transvaal, Swaziland, and Portuguese East Africa. The pods are large and woody and contain a black seed partially covered with a red aril. The seeds are used for ornamental trinkets.

(xl) *Aspalathus cedarbergensis*, Bolus (Rooibos Tee).—A small shrub with needle-like leaves found on the mountains of the south-western parts of the Cape Province. The leaves are dried and brewed as a tea.

(xli) *Bauhinia esculenta*, Burch. (Gemsbok Beans).—A plant with a large underground root, from which long branches spring. It is found in parts of the western Transvaal, the Kalahari, and South-West Africa. The seeds contain about 50 per cent. of oil of a non-drying type and similar in composition to cottonseed oil. The seeds form part of the staple diet of the natives.

(xlii) *Cyclopia brachypoda*, Hofmeyr.—Very common in the Caledon and Swellendam districts, and is the source of the commercial "Caspa Tea."

(xliii) *Cyclopia genistoides*, Vent. (Honey Tea).—Found in many parts of the south-western Cape Province. The leaves are used as a tea substitute.

(xliv) *Cyclopia tenuifolia*, Lehm. (Vlei Tee).—A small shrub found on the mountains of the south-western portion of the Cape Province. The leaves are subjected to a process of fermentation and used as a tea. May be bought under the trade name of "Grandiflora Tea."

(xlv) *Elephantorrhiza Burchellii*, Benth. (Elandsboontjies).—An acaulescent plant with bipinnate leaves and very large underground root-stocks. Extremely common on the High Veld during the spring months. The underground portions yield a dye and also contain tannin.

(xlvi) *Erythrina Zeyheri*, Harv. (Dwarf Kaffir Boom).—An acaulescent plant with large underground root-stock and trifoliate spiny leaves. Common on the High Veld. The pods contain red seeds, which are used for making small ornamental trinkets.

(xlvii) *Sesbania cinerascens*, Welw.—A tall plant with pinnate leaves found growing near streams in many parts of the northern Transvaal and Swaziland. The pods contain small seeds, rich in food material, and suitable as a meal for stock feed.

(*s*) LILIACEAE.—Plants usually with a bulbous root-stock, often stemless, sometimes climbing. A large family of over 2,000 species widely distributed. An important family in South Africa, being represented by the genera *Aloe*, *Ornithogalum*, *Asparagus*, *Scilla*, etc. Several species, such as *Urginea Burkei* (Transvaal Slangkop), are extremely poisonous to stock; other species are of some medicinal value.

(xlviii) *Aloe ferox*, Mill. (Cape Aloe).—A very common *Aloe* in some parts of the Union. It has a tall stem, often up to 6 feet high, crowned with a dense rosette of leaves. The thick juice is collected from the leaves and evaporated when the product known as "aloes" crystallizes out. The leaves of some other species of *Aloe* (*A. arborescens*, Mill., *A. speciosa*, Bkr.) yield dyes.

(*t*) MALVACEAE.—Herbs, shrubs, or trees, often covered with star-shaped hairs and with solitary flowers. A very widely distributed family of about 800 species. The fruits of some (*Hibiscus esculentus*) are edible, many produce fibre, the best known of which is cotton from *Gossypium*.

(xlix) *Abutilon tortuosum*, Guill. and Pers.—A plant found naturalized in parts of the Transkei. The bark yields a fibre of good quality.

(l) *Hibiscus cannabinus*, Linn. (Deccan Hemp).—A tall growing plant with straight stems and prickly fruits. Cultivated in parts of the Transvaal for the fibre, which is suitable for the manufacture of bags.

(li) *Sida rhombifolia*, Linn. (Pretoria Bossie, Taaiman).—A very common weed in parts of South Africa. The plant has a long thin tap root and pale-yellow flowers. The stems contain a fibre of good quality, but of short length.

(*u*) MELIACEAE.—A family comprising almost 800 species, frequent in America and Asia. Usually trees or shrubs with the leaves often crowded at the ends of the branches. The valuable timber mahogany is produced by a species of *Swietenia*. Sneezewood is obtained from a native species (*Ptaeroxylon utile*).

(liii) *Trichilia emetica*, Vahl. (Mauferra Seeds).—A tall tree found in Natal, Zululand, northern Transvaal, and Portuguese East Africa. The seeds are black with a red aril, and contain a large quantity of oil from which a solid fat is obtained.

(*v*) MYRICACEAE.—A small family of trees or shrubs, comprising about 50 species, all belonging to the genus *Myrica*.

(liii) *Myrica cordifolia* (Wax-berry).—A spreading bush found growing on sand-dunes from Cape Town to Port Elizabeth. The small spherical fruits have a waxy covering, which is collected by boiling the fruits and skimming off the wax. The wax is used as a floor and furniture polish.

(*w*) OLACACEAE.—A small family of 13 genera and about 100 species, natives of America, Africa, Asia, and Australia. Trees or shrubs with simple leaves.

(liv) *Ximenia caffra*, Sond. (Suurpruim, Sour Plum).—A small bush found in the northern Transvaal. The fruits are edible and the kernels yield about 65 per cent. of a viscous oil of the non-drying type.

(*x*) PALMAE.—This family includes the plants known as palms. It contains about 1,200 species widely spread through the tropics and subtropics of both hemispheres. The family is a very important economic one, as it furnishes edible fruits, seeds, besides other foodstuffs, e.g. sago. The stems of some are tapped for a sugary fluid from which fermented drinks are prepared. Other species yield timber, fibre, etc.

(lv) *Hyphaene crinita*, Gaertn. (Itala Palm).—Very common in the coastal belt of Natal and Zululand and in parts of the northern Transvaal. The young leaves yield an excellent fibre from which string, ropes, mats, etc., are made. The leaves are woven into baskets, hats, and other similar articles, while the kernel of the fruit produces the so-called vegetable ivory. The natives prepare an intoxicating drink from the sap.

(*y*) PORTULACACEAE.—Species about 200, natives of Asia, Africa, Madagascar, America, Australia, and New Zealand. Plants of various habit, usually herbs or undershrubs.

(lvi) *Portulacaria afra*, Jacq. (Spekboom, Elephants' Food).—A tall succulent shrub with small fleshy opposite leaves. Found abundantly in the eastern Karroo, and forms one of the most valuable stock-food plants in times of drought.

(*z*) RUBIACEAE.—A large family of over 5,000 species, especially abundant in tropical countries. The members of the family are herbs, shrubs, or trees with opposite leaves. The two most important genera are *Cinchona*, which yields quinine, and *Coffea*, the seeds of which furnish the coffee of commerce.

(lvii) *Rubia cordifolia*, Linn. (Indian Madder).—A small herbaceous plant, common in parts of Natal and the eastern areas of the Cape Province. The long cylindric roots yield a dye. The true Indian Madder is *Rubia tinctorum*, from which formerly the dye alizarin was extracted.

(lviii) *Vangueria infausta*, Burch. (Mispel, Wild Medlar).—A bush, from 3 to 10 feet high, found in the Transvaal, Natal, and Rhodesia. The fruit is highly flavoured and is collected for local use.

(*aa*) RUTACEAE.—Trees or shrubs, rarely herbs, usually with gland-dotted and aromatic leaves. Species about 700, found in all warm and temperate countries, but most numerous in South Africa and Australia. Several species are used medicinally. The genus *Citrus* yields important fruits—orange, lemon, citron, etc.

(lix) *Barosma betulina*, B. and W. (Round-leaved Buchu).—A small aromatic bush found abundantly in the Cedarberg Mountains in the Clanwilliam District. The leaves contain an essential oil and yield the "buchu" leaves of commerce. Another species, *B. crenulata*, Kuntze, is also exploited for its leaves, but these are not considered so good as those of *B. betulina*.

(lx) *Calodendron capense*, Thunb. (Cape Chestnut, Wilde Kastanje).—A large and ornamental tree found in the south-eastern districts of the Cape Province. It produces a large woody fruit covered with protuberances and which contains shining black seeds. The seeds yield an oil of the non-drying type and suitable for soapmaking.

(*bb*) SANTALACEAE.—A temperate and tropical family of about 400 species, comprising herbs, shrubs, and trees of varying habit, often parasitic. Represented in South Africa by the genus *Thesium* and several smaller genera. The valuable sandalwood is furnished by a species of *Santalum*.

(lxi) *Osyris Abyssinica*, Hochst. (Bergbas, Transvaal Sumach).—A common bush in the Transvaal with greyish glaucous leaves. The leaves are used for tanning.

(*cc*) SAPINDACEAE.—Species over 1,000, distributed in tropical and subtropical countries. Usually trees or shrubs of varying habit; poorly represented in South Africa. Some members of the family yield timber, others edible fruits.

(lxii) *Pappea capensis*, E. and Z. (Bergpruim, Kaambessie, Olie Pitten).—A shrub or small tree of the eastern Karroo. The seeds, which are contained in a small globose fruit, yield about 47 per cent. of oil of a non-drying type, and suitable either as a lubricant or in the manufacture of soap.

(*dd*) SAPOTACEAE.—Trees or shrubs with milky juice. Species about 400, mainly confined to the tropics. Many species furnish gutta-percha.

(lxiii) *Chrysophyllum magaliesmontanum*, Sond. (Stamvrugte).—A small tree found chiefly on the Magaliesberg Range. The fruits which are borne on the old branches make an excellent preserve.

(lxiv) *Mimusops obovata*, Sond. (Moepel, Rooi Melkhout).—A shrub, extending from the Uitenhage district through the eastern districts of the Cape Province into Natal, and Transvaal. It bears a large edible yellow fruit.

§ 11. Fauna.

1. **General.**—South Africa is rich in certain groups of the animal world; although with the advance of settlement and colonization the numbers, particularly of certain classes, are being rapidly reduced. This is more especially the case with the magnificent game animals or antelope. Much of the present knowledge of the *fauna* of the country is due to the early investigators, notably the Swedes—Sparrman, Thunberg, Wahlberg, Victorin, and C. J. Anderson, the German—Lichtenstein—and the Englishmen—Barrow, Burchell, Sir A. Smith, Layard, Trimen, and Selous.

An article descriptive of the fauna extant in South Africa, contributed by Dr. A. K. Haagner, F.Z.S., Director of the National Zoological Gardens, Pretoria, appeared in earlier issues of this *Year Book*. In the matter of game protection, South Africa has arrived at the stage where a self-consistent national policy should be formulated. On the one side, the march of civilization is making the maintenance of large herds of our indigenous fauna more and more difficult. Ranching is economically a doubtful proposition when grazing has to be found for large numbers of wildebees, zebras, etc., in addition to cattle. On the other hand, certain of our rarer types of game are in danger of entire extermination. The first of these two aspects is alluded to below in connexion with the Transvaal Game Laws. On the second, an article appears in Section 3 of the present paragraph by the Director of the National Zoological Gardens, Pretoria.

2. **Game Preservation.**—The preservation of game is dealt with by the Provincial Administrations. In the *Cape of Good Hope* the preservation of game is regulated by Act No. 11 of 1909, those parts of the First Schedule to Ordinance No. 16 of 1920 entitled "Game" and "Wild Ostriches", Ordinance No. 10 of 1911, Ordinance No. 17 of 1918, and Ordinance No. 7 of 1920. Game is fully protected in the Province, and the close seasons, which vary as to period according to area, occur generally within the interval 1st July to 30th April. Any person desirous of shooting or capturing Royal or Big Game (except such as may be exempted under Act No. 11 of 1909) is required to obtain an ordinary game licence, a Royal Game licence, and a special permit from the Administrator. The following species of Royal Game are found in certain areas:—Elephant, eland, zebra, buffalo, bontebok, blesbok, gemsbok, hartebees, koodoo, rietbok, wildebees, and klipspringer. Permits to shoot or capture elephants, elands, or zebras are only issued under the most exceptional circumstances. The undermentioned birds and animals are specially included as game with respect to certain districts:—Namaqua partridge, wild duck and geese, snipe, coot, flamingo, ant-bear (*Orycteropus capensis*). The shooting of game is prohibited in the Game Preserves situated in the Province.

In *Natal* the first game law was enacted in the year 1866, the close season being fixed from the 15th August to the 30th November in each year. Eighteen years later the close season was altered so as to commence on the 1st July and terminate on the 31st December. Law No. 16 of 1891 enacted that the close season should be from the 16th August to the 30th April, and heavy penalties were provided for trapping game, while a law promulgated in 1894 limited the discretion of the Governor to permit the destruction of Royal Game to the open season only.

In Zululand a close season for game from the 1st August to the 31st March was established in 1890, and in 1897 the first game reserves were demarcated, though hunting in them was allowed by permit. In 1903 the Giant's Castle Game Reserve was established with the special object of preserving the few eland still to be found in Natal. The Natal and Zululand game laws were consolidated in 1904, and a uniform close season from the 16th August to the 30th April was fixed, the destruction of all but the smallest game with a shot-gun being prohibited. The employment of natives to hunt game otherwise than as beaters was made illegal; stamp duties on licences for certain game were imposed, and

the Governor no longer exercised the function of issuing permits for the destruction of absolutely protected or Royal Game.

In 1911 a Game Conservator for Zululand was appointed with headquarters at Nongoma.

An Ordinance to amend the laws relating to game was passed in 1912 and practically consolidated all previous legislation on the subject. The game was divided into three classes, viz., ordinary or small game which can be shot during the open season (1st May to 15th August) on payment of the sum of £1; specially protected game in respect of which varying fees for the different animals are payable, and Royal Game which may not be destroyed at any time, except for scientific or certain public purposes on special permit. Special provision is made by the Ordinance for the destruction by owners or occupiers of land of ordinary or specially protected game during the close season, where damage to standing crops, plants, or trees can be proved, and for the killing by residents in Zululand of a limited number of game for food, more especially during times of scarcity due to failure of crops.

In the game reserves no hunting is allowed, and the Administrator is empowered to establish or abolish such reserves from time to time. Five such reserves are at present demarcated, of which the principal are the Giant's Castle where eland are to be found, and the Mkuzi which shelters the inyala (a buck which at one period was threatened with extinction), the impala, the Zululand suni or Livingstone antelope and other game.

In addition to those already mentioned, game reserves have been established at the request of the owners on two farms in the Klip River Division and one in the Umgeni Division.

The penalties involved for contraventions of the *Game Ordinance* range from fines of £20 to £200, with the alternative of periods of imprisonment extending from one month to two years.

Owing to the existence of the tsetse fly or Nagana disease in cattle the provisions of the *Game Ordinance* have been relaxed considerably in Zululand since the year 1915, and the fees payable in respect of specially protected game much reduced. The country has been divided into open areas, special shooting areas, and game reserves.

The animals classed as Royal Game and which may not be captured or destroyed except by special permit for approved scientific institutions or to serve some public purpose comprise the white rhinoceros, elephant, roan antelope, sassaby, blesbok, springbok, and females of the eland, impala, and inyala, as well as the crested crane and Stanley crane, and the klipspringer and oribi (in Zululand only).

In the *Transvaal* game legislation restricting and regulating the destruction of wild animals and birds is contained in Ordinance No. 6 of 1905, as amended by Acts Nos. 13 and 30 of 1907, Act No. 11 of 1909, Ordinances No. 21 of 1917 and No. 9 of 1918.

The "Big" Game of the Transvaal Province comprises the larger and rarer animals and birds, including roan and sable antelope, inyala, gemsbok, sassaby, koodoo, hartebees, zebra, wildebees, ostrich, and crested crane. The elephant, rhinoceros, hippopotamus, buffalo, and eland are now practically unknown in the Transvaal except in the game reserves. In respect of the *blue* wildebees, representations were made by the farming community in certain districts in the Transvaal that this animal, which was fairly abundant, was communicating "snot-siekte" to domesticated cattle, and after enquiry into the facts had been made, the animal was removed by Proclamation, dated the 13th June, 1925, from the schedule of big game in the districts of Pietersburg, Waterberg, Zoutpansberg and Potgietersrust (excluding the Transvaal Game Reserve) and put on the schedule of game which may be hunted during the open season.

Lions and leopards are not classed as game, but are regarded as vermin. Ordinary game consists of all Transvaal varieties of the smaller and more common kinds of buck, hares, and the warthog; also the following birds:—All Transvaal varieties of pheasant or francolin, partridge, sandgrouse, guineafowl, wild duck, and wild goose. No game may be shot or hunted without a game licence by any one except the owner or lessee of a farm on which the game is pursued and, of course "open" varieties only may be shot. Big game may not, under severe penalties, be shot or hunted without a special big game licence issuable only by the Administrator. A game licence only entitles the holder to shoot game during the open season. There is a uniform open season for small game throughout the Province, usually 15th April to 31st August. The big game season is from the 1st June to 31st August. A game licence may restrict the holder to destroying only a given number of either or both sexes of any kind of game. The destruction of any particular kind of game may be restricted throughout the Province or in any particular district for a given period. The possession of a game licence does not give the right to pursue or destroy any game so protected, neither can the owner or lessee of a farm destroy game so protected on his farm. Certain areas are proclaimed as game reserves in which shooting and hunting are entirely prohibited.

There are three game reserves in the Province where shooting and hunting are absolutely prohibited. They are the Pretoria Reserve, the Transvaal Game Reserve, which was formerly known as the Shingwedzi, and the Sabie Reserve.

In the *Orange Free State*, Ordinance No. 13 of 1914, which took effect on the 21st August, 1914, consolidated and amended the laws with reference to the protection of the several kinds of wild animals commonly known as *buck*, comprehending the whole antelope species and including the wildebees or gnu, the several kinds of birds, not being domesticated, known as ostrich, paauw, korhaan (bustard), guineafowl, partridge (francolin), pheasant, dikkop, goose, duck, coot, plover, lapwing, snipe, and other water fowl and any other wild animals or birds which the Administrator may, from time to time, by proclamation declare to be game. The period between and including the first day of August in any year and the last day of March in the succeeding year is the close season for game. The Administrator is also empowered to prohibit the hunting of any kind of game or of any other wild animals or birds for any period not exceeding three years in any district of the Province.

As to the Royal game, no person, whether an owner of land or not, is allowed to hunt at any time any locust bird or, without the written permission of the Administrator, any hartebees, koodoo, or eland or any other animal or bird which the Administrator may at any time by proclamation declare to be Royal Game.

A game reserve has been established by the Provincial Administration on the Somerville Estate in the Winburg district, which was handed over to the Province for that purpose by the Department of Lands in December, 1924. The principal kinds of game at present found on the reserve are blesbok and springbok. A limited number of shooting permits are issued annually from the office of the Provincial Secretary.

3. **Some of the Rarer Game Animals of South Africa and the need for their Protection.***—Several of the most interesting forms of the larger mammalian fauna of South Africa have already disappeared from the face of the earth. Their lamentable extinction was caused by man. The true quagga—an animal resembling the zebra, but striped only as far as the shoulder—disappeared in a wild state about 1870. It was the southern representative of this lovely group of equines and was slaughtered by the white colonists and natives. To-day only eighteen mounted specimens exist in the museums of the world. The bloubok was a large antelope related to the roan and sable antelopes of to-day, and disappeared from South Africa in 1800, only eight mounted specimens being in existence in European museums. How many people of South African birth will ever get the chance to see these two extinct animals of their own land? Several other species are in danger of extermination and efforts should be made to save them before it is too late.

The *true* white rhino exists only in a scattered state in Zululand, the reserve which they occupied having been done away with; and there cannot be more than thirty in existence. The colonists seem determined that the last one shall go, blaming these mighty animals (the second largest terrestrial mammal living to-day), amongst others, for the stock disease known as nagana. Formerly this animal was common all over South Africa, and as far as one can judge by present appearances, the species is doomed unless superhuman efforts are made to save it.

The black rhinoceros still exists in fair numbers in parts of Rhodesia and South-West Africa, but only a few are found in the Sabie Reserve and in the Zululand Reserves. It seems almost certain that the latter will in course of time disappear, and then what is to become of the black rhino and the beautiful nyala antelope is difficult to foretell. The nyala is only found in the thick bush of the coastal districts from Zululand to Portuguese territory, and there is supposed to be a small patch in Nyasaland inhabited by this species. It is very localized and affects thick bush, but nevertheless it is becoming very scarce in Portuguese territory, where the natives possess rifles and trap game wholesale. If the Zululand Reserves are all deproclaimed this lovely creature will also be doomed to extinction.

The bontebok and the mountain zebra of the Cape only number a few hundred individuals each, and no reserve exists wherein they can carry on. The farmers of the Cape are now making a dead set against the mountain zebra, want them removed from their farms, and are agitating for permission to destroy them. As they live on the mountains, it is not clear what damage they can do—at any rate to such an extent that they must be destroyed. The bontebok has only been saved by the praiseworthy efforts of a few of the old Cape farmers and is found to-day only on a few farms in the Bredasdorp district of the Cape Province. If a small Government Reserve could be set aside for these two species, they might be saved to the South African nation.

The eland is only found in South Africa to-day in Rhodesia and parts of Bechuanaland. There are a few in the Giant's Castle Reserve in Natal, and also a few in the Shingwedzi Reserve of the Transvaal. The Vaal rhebok is getting very scarce, and the mountain ranges of the Drakensberg which at one time contained a large number is to-day almost devoid of this peculiar antelope. With its woolly, fur-like hair and stilted gallop, it is one of the most interesting forms we have, but legislation protecting it has done little towards preserving the species, owing to the poaching proclivities of the inhabitants, both white and black. The little oribi of the flats is in much the same state. Usually mistaken for a

*By A. K. Haagner, Sc.D., F.Z.S., Director, National Zoological Gardens of South Africa and President, Transvaal Game Protection Association.

steenbok, it receives scant mercy from the so-called sportsman, and its only hope of survival lies in the Sabie Reserve, but here again the area occupied by these little antelopes is in danger of being deproclaimed.

The true grysbok of the Cape is getting scarcer every year, and its supposed fondness for the tender shoot of the grape vine does not, of course, protect it or assist in preserving it from wanton destruction.

The farmers are the people who can, and should, assist the nation in the preservation of its fauna, especially in regard to the smaller varieties, while the reserves will ultimately be the only places wherein the larger animals can be saved. For this reason it has been the long-cherished idea of the Transvaal Game Protection Association to see the Sabie and Shingwedzi Reserves of the Transvaal, and at least one of the Natal Reserves, nationalized by Act of Parliament so that they will remain for all time a sanctuary in which our wonderful and varied fauna may live and multiply in an undisturbed and natural manner, and in which the townsman, the naturalist, the school teacher, and above all the children of the country can view the four-footed inhabitants of their land, and can gain some idea of what sunny South Africa was like in the old "Voortrekker" days before the advance of civilization and agricultural pursuits forced the game animals to retire, or to die out altogether. After all, these beautiful forms were created for us by Nature and were left in trust for us by our forefathers. This trust should be just as sacred to us, and it behoves us to see that the heritage left us by our fathers should be handed on to our sons. One generally realizes the real value of what one has lost when it is too late, and it is to be hoped that the powers that be will do all they possibly can to ensure that the various forms of animal life that are to-day in danger of extermination, shall be given a fair chance to survive.

§ 12. Climate and Meteorology.*

1. **Historical Sketch of Meteorological Development in the Union.—Cape Colony.**—Although occasional notes on the outstanding features of the weather—droughts, gales, floods, etc.—prevailing at Table Bay, are to be found in the journals of the early Dutch Commanders or Governors at the Cape, the first regularly kept record of meteorological phenomena seems to have been that of M. l'abbe Nicolas Louis de la Caille, taken at Cape Town, from 1st July, 1751, to 30th June, 1752. The results of his observations are contained in the second of three memoirs communicated to the Academy of Sciences of Paris, and are contained in the volume for 1751, published in 1755. A perusal of this most interesting memoir shows de la Caille to have been a keen and accurate observer of Nature, while his graphic description of the phenomenon associated with the summer "South-Easter" is an accurate description of what occurs at the present day. It was not until about the year 1818 that the Colonial Government began to show some interest in the meteorology of the Cape Colony and instructions were then given to their officers in the country districts to make observations and to transmit their registers to Cape Town. Apparently barometers and thermometers were supplied to a number of places in the south-west and south, but of the type of instruments, the mannner in which they were exposed, or the necessary corrections, no information is available. A number of these meteorological registers were printed in the *Government Gazette*, between September, 1818, and June, 1825. The stations from which records were received were Cape Town, Zwartland (or Malmesbury), Stellenbosch, Tulbagh, Swellendam, George, Uitenhage, Bathurst, Worcester, Albany, and Clanwilliam. The majority of these records are from Cape Town, and contained the maximum and minimum temperatures and pressure for each day, as well as two observations of wind and weather. The observers were most active during the years 1821–23, but appear gradually to have lost interest, until observations were discontinued altogether after 1825. In the year 1827, the Royal Observatory, near Cape Town, was established, and since that time meteorological observations on a more or less complete scale have been carried out there.

On the establishment of the South African Institution, Cape Town, in 1831, the subject of meteorology was again taken up more systematically, and matters of some permanent interest are to be found in reports of the committee of that body between 1831 and 1837; but, as apparently no provision was made for the replacement of broken instruments, the work of observation was gradually discontinued. During the years 1834 to 1838, meteorological observations were made by Sir John Herschel, near Wynberg, but these have never been published.

In 1835 the South African Institution enjoyed the advantage of the presence and aid of Sir John Herschel, who became its president. He prepared a series of instructions for taking observations and analysed and discussed the returns from different stations,embodying some of his results in an article on "Meteorology" in the Encyclopaedia Britannica.

In 1841 a Meteorological and Magnetical Observatory was established at the Cape and placed under the direction of Captain Frederick Eardly Wilmot, R.A. This observatory, was erected in the Royal Observatory grounds, and hourly observations made from October

* Contributed by Mr. C. Stewart, B.Sc., Chief Meteorologist of the Union (with the exception of paragraph 14).

1841, to July, 1846. In the year 1846, on the withdrawal of Captain Wilmot, the meteorological work was placed under the direction of the Astronomer Royal. Observations have been continued there since that period, but are now only taken three times daily, viz., at 8.30 a.m., local mean noon, and 8.30 p.m. An examination of portion of the earlier observations for 1835 show that these possess but little scientific value, and although Dr. John Crounbie Brown in his book, "Water Supply of South Africa," gives the total annual rainfall for the years 1838 to 1841, the latter year may be regarded as the real beginning of satisfactory observations at the Cape.

Evidently recognizing the importance of a proper survey of the possibilities of the country, the Government made a second and more serious attempt in 1860 to investigate its climate and a Meteorological Committee was appointed by Government Notice No. 363, dated the 26th October, of that year. A very good beginning was made by distributing instruments consisting of a standard barometer, a dry bulb, wet bulb, maximum, minimum, and solar radiation thermometer and a rain gauge to the following ten stations which were fairly typical of the whole Colony: Clanwilliam, Simonstown, Somerset West, Mossel Bay, Graaff-Reinet, Colesberg, Grahamstown, and Queenstown.

Soon afterwards the excellent plan was initiated of supplementing the data obtained from these stations by records of maximum and minimum temperatures, from what would now be termed Third Order or Climatological stations, while the necessity for a wider distribution of rain gauges was also realized and apparently acted upon. It will thus be seen that even at this early date there was a division of stations into the same three classes that obtain at present. The first report was published in 1862, but a subsequent report for 1864 was rejected by the committee as inaccurate.

Notwithstanding the excellent start of a proper plan of campaign for investigating the climate of the Cape Colony, the enthusiasm with which the work was originally undertaken seems to have gradually declined; broken or defective instruments were not replaced, with the result that the observations at most stations were very incomplete after 1868.

In 1874 the Meteorological Committee was resuscitated or reorganized with the title of Meteorological Commission. With the appointment of this Commission, a period of progress and expansion was initiated which although slow at times, continued until its automatic dissolution in 1912. The success attending the efforts of this Commission may be attributed in great part to the personnel composing it at various times, many of whom took a real interest in the work and had broad and far-seeing views as to its requirements, as well as paying attention to essential details. Thus, shortly after its re-formation, the Commission began to realize the necessity for providing proper shelters for the uniform exposure of thermometers, and the original small pattern of "Stevenson Screen" was adopted with greatly improved results. With the advent of Mr. J. G. Gamble, Hydraulic Engineer to the Colony, in 1887, there was begun the establishment of stations equipped with rain gauges only, on a more liberal scale than was possible with the other types of stations. In 1879, with the appointment of the late Sir David Gill, Astronomer Royal, as a member of the Commission, the important step of providing for the inspection of stations was taken, thus greatly enhancing the value of the observations, so that the service soon began to assume a satisfactory character. Upon the suggestion of the Astronomer Royal, anemometers of the Kew pattern were erected in 1882, at the Royal Observatory and East London, and in the ensuing year at Port Elizabeth and Durban. These were intended to be used in conjunction with tide gauges, in connection with a tidal survey of the coast of South Africa, then being carried out on the proposal and under the direction of Sir David Gill. The original siphon barometers in use being found very unsatisfactory, they were replaced by the "Kew" pattern of marine barometer. Attempts were made to introduce self-recording barometers and thermometers, but on being tested, most of them proved unreliable and the idea was abandoned. The subject of evaporation also began to receive some attention. New instructions for observers, applicable to the recently adopted types of instruments, were prepared and the results of observations were issued yearly as a separate publication from 1875 to 1908 inclusive, when they were discontinued. In fact, all the energies of the Commission were devoted to improving the existing organization so as to render it more efficient and at the same time to bring it into line with international usage. In dealing with the development of meteorology in South Africa, it is impossible to avoid mentioning the establishment about 1896, of the De Beers' first order station, then the only one of its kind, at Kenilworth, near Kimberley. This station is under the management of Dr. J. R. Sutton, whose valuable contributions to the South African Philosophical Society (now the Royal Society of South Africa), the quarterly journal of the Royal Meteorological Society, and other publications have thrown a great deal of light on some of the many problems of plateau meteorology, as well as removing a number of erroneous impressions derived from the discussion of previous observations of a less complete character.

Natal.—Observations of rainfall were apparently first started at Pietermaritzburg in the year 1854, but the name of the pioneer observer is unknown. The meteorology of Natal will, however, always be associated with the name of Dr. R. J. Mann, M.D., who not only established his own station at Maritzburg but discussed very fully and in an interesting

manner, the results for various portions of the period 1858–1867. His numerous papers on the climate of Natal were mainly contributed to the British Meteorological Society, whilst a work entitled "The Colony of Natal," compiled and edited by him, was published in 1859. Rainfall was also measured at several other stations in the Colony, but it was not, seemingly until 1870, that observations of pressure, temperature, etc., were started in other parts of the Colony. In January of that year a complete set of instruments was being read at Bushy Park, near Durban, but these were apparently transferred in February, 1872, to a new position on the Berea, Durban, where the work was continued. In 1873, the same instruments were installed at the Natal Botanic Gardens, Durban, where observations were carried on until 1883. With the opening of the Astronomical Observatory at Durban in 1884, under Mr. E. Nevill, the work was taken over by that institution, and until the year 1908 the results of these observations were included in the annual reports of the Government Astronomer. In 1892, five additional stations equipped with rain gauges and thermometers were started at five magistracies, chiefly on the coast, viz., at Stanger, Verulam, Umzinto, Port Shepstone, and Polela. These subsidiary stations were gradually increased in number to thirty-two, and the results included in the annual reports.

Orange Free State.—The first known observations in the Free State were those taken at Bloemfontein in 1878—consisting of pressure, temperatures, etc.—and with the permission of the Orange Free State Government were sent to the Cape Meteorological Commission, for inclusion in its annual report for that year. The next year similar data for Bloemfontein were supplemented by rainfall data for the four stations Kroonstad, Boshof, Ladybrand, and Philippolis. These rainfall stations were subsequently increased to ten or a dozen, but fluctuated from year to year, and the resulting data were included in the Cape Commission's yearly reports. This state of affairs continued until 1903. From this year the number of stations was rapidly increased, until they exceeded 250 rainfall stations, including 13 temperature stations, 9 of which also had barometers. Tabular statements of the results were incorporated in the annual reports of the Agricultural Department for the period 1st July, 1904, to 30th June, 1909.

Transvaal.—The early stages of the development of meteorological observational work in the Transvaal seems to have been closely associated with the gold-mining industry. The earliest series of rainfall observations of which there is any record were those begun at Pilgrim's Rest in January, 1885, closely followed by those at Barberton, commencing in January, 1888, and at Johannesburg (Joubert Park) in January, 1889. The first Government rain gauge erected in the Transvaal was most probably that on the roof of the Old Government Buildings, Pretoria, the first record from which was for the month of November, 1894. The only barometric and thermometric station known to have been in operation about this time was that at Joubert Park, Johannesburg, from 1893. On the appointment of Mr. (now Dr.) R. T. A. Innes to the post of Director of the Transvaal Meteorological Department in 1903, the work of establishing stations in all parts of the Transvaal was carried out with such energy and enthusiasm that in seven years' time close on 700 stations were in working order. Another very important step was the establishment of a First Order station equipped with self-recording instruments at Johannesburg. This observatory was first occupied in May, 1904, and is still the only official station of its kind in the Union. In 1912, about two years after Union, the meteorological services of the four Provinces were amalgamated under an official having the title of Chief Meteorologist of the Union and the office was attached for financial purposes to the Department of Irrigation. Since then the work of unification and development has been carried on steadily and at the end of March, 1925, the following was the numerical distribution of stations in the various Provinces:—

Province.	First Order Stations.	Barometric Stations.	Thermometric Stations.	Rainfall Stations.	Totals.
Cape	—	26	61	1,063	1,150
Natal	—	8	27	175	210
Orange Free State	—	5	13	646	664
Transvaal	1	50	55	896	1,002
	1	89	156	2,780	3,026

In addition to the above, there were co-operating with this office 10 stations in Basutoland, 3 in Rhodesia, and 32 in South-West Africa. The autographic instruments in use consist of 10 anemographs, 30 barographs, 14 thermographs, 13 hygrographs, and 15 sunshine recorders, but, unfortunately, the present staff is insufficient in number to enable the work of reducing the records from these instruments to be carried out. Since the amalgamation of the services of the different Provinces, further development has been taking place in the organization of a system of daily forecasts, as well as of upper air observations.

Forecasting.—In the early eighties, attempts were made to forecast the weather over the Cape Province, but owing in large measure to the paucity of data, this was discontinued. In 1883, the Cape Meteorological Commission organized a system of simultaneous observations at 8 a.m. Cape mean time of $22\frac{1}{2}°$ east longitude of pressure, temperature, winds, etc., at ten stations situated mainly on the coast and the results were transmitted by telegraph to Cape Town. After the necessary reductions to sea-level, etc., the corrected readings were sent to each of the coast ports, where they were entered on a sketch map of the coast-line for the information of mariners and others. It was hoped by these means to discover some of the laws governing the coast weather, or at any rate the paths of storm centres, and so lead to the issuing of storm warnings. In 1884, a similar system of inland *weather messages* was started by the Government Astronomer in Natal. The data supplied consisted of the direction and force of wind, the state of sky, the approximate amount of rain that had fallen, as well as the time of maximum intensity of any thunderstorms since the previous observation. In 1900, a separate system of *weather messages* from about forty inland stations was started for the benefit of the Cape Agricultural Department. In 1905, on the occasion of the visit of the British Association for the Advancement of Science to South Africa, the writer stated in an article contributed to "Science in South Africa," that investigation had led to the conclusion that the depressions that visit South Africa are generally not fully developed cyclones but rather V-shaped depressions and wedges, whilst a large proportion of our rainfall occurs in connection with "secondaries." Further, that the types of barometric depressions approximate more to those that visit Australia than to those of Europe.

In 1906, the Transvaal Meteorological Department began issuing daily forecasts for the Transvaal. Owing to the height of the stations being known only approximately, the forecasts were based on a system of departures from the monthly normals. On the unification of the various meteorological services, forecasts were extended so as to include the whole Union. The first general forecast was issued on the 23rd May, 1912. This work has throughout been considerably handicapped by an absence of good reporting stations in the western, that is, the more arid portions of the Union, as well as the continued absence of reliable information as to the height above sea-level of most of the stations. As time went on, it became more and more evident in attempting to draw the daily isobars that we were dealing only with fragments of the various high and low pressure systems, and it was resolved to extend the area covered by the isobars by inviting the co-operation of adjoining territories, more particularly Portuguese East and West Africa, Madagascar, Mauritius, etc., as well as the assistance of ships equipped with wireless apparatus belonging to the various companies whose vessels visit South African waters. This extended system came into operation about the beginning of December, 1923, and has helped to throw a considerable amount of light on the extent of the various high and low pressure systems affecting South Africa. In October of 1924, there was started the further innovation of broadcasting a summary of the weather conditions prevailing at 6.30 a.m. Greenwich mean time at the principal coast stations between Mozambique in the east and Loanda in the west. These reports are broadcasted for different sections of the coast by the wireless stations at Mozambique, Lourenco Marques, Durban, Port Elizabeth, Cape Town, and Walvis Bay; also special forecasts for the coast by the last four wireless stations. A separate forecast for the interior, with temperature and rainfall data for the telegraph reporting stations in each Province, as well as similar information collected for the principal towns of the Union, is distributed by telegraph throughout the country and copies are also supplied to the principal newspapers for publication.

A good deal of information concerning the weather experienced off the coast of South Africa will be found in the earlier volumes of the quarterly journal of the Royal Meteorological Society, as well as in the publications of the Meteorological Office of Great Britain. Among the more important of these may be mentioned "Meteorological Charts of the Ocean District Adjacent to the Cape of Good Hope" with remarks thereon in a separate volume (No. 43 of Meteorological Office publications, 1882); "Report of the Gales Experienced in the Ocean District Adjacent to the Cape of Good Hope," by Captain Toynbee (No. 44 of Meteorological Office publications, 1882), as well as in the more recent publication, "Meteorological Charts of the Southern Ocean between the Cape of Good Hope and New Zealand" (2nd edition, 1907); also some of the papers of Commander Campbell, M. W. Hepworth, and various other publications of European countries, particularly those of the Meteorological Institute of the Netherlands, Utrecht.

Ocean Circuit.—Charts showing the surface currents, winds, distribution of ice, etc., over the adjacent oceans have been published from time to time by the British Admiralty, Meteorological Office, and other institutions of various countries. Between 1900 and 1906, the Cape Meteorological Commission carried out some investigations of the littoral urrents by means of bottles, set adrift from the Union-Castle boats at fourteen different points round the coast. Some of the results obtained were published in a paper entitled "Currents on the South African Coast as indicated by means of Drift Bottles."* At the same time surface temperatures of the sea were taken at a number of coast stations as also from the vessel "Pieter Faure" at different depths. A paper dealing with some of the results was issued by Dr. Gilchrist, under the title "Observations on the Temperature and Salinity of the Sea around the Cape Peninsula." (Department of Agriculture, No. 10, 1901.)

Upper Air Observations.—The first "Pilot Balloon" ascent for determining the direction and velocity of the air at various altitudes was carried out on 18th June, 1918, at Pretoria, by Mr. G. W. Cox; these observations have been continued at the Capital up to the present time. During the recent experimental air mail service, observations of the upper currents by this method were carried outat five coast stations, mainly from the middle of April to the middle of June of the year 1925. The results from these stations are in course of preparation. A further advance in upper air research was made on 18th February, 1922, when a "Sounding Balloon" carrying instruments for obtaining records of pressure and temperature was set free. Five more were despatched on the "International Days" in May of the same year, but only two of these were recovered. The results of these ascents were published in the Monthly Weather Report for May, 1922.

Publications.—The meteorological services of the various Provinces discontinued publishing the results of observations a year of two before Union, in anticipation of some material alteration being effected in the form in which the blue-books would be issued after that event. In 1912, it was proposed, in view of many of the reports of all Provinces being out of print, that all available data to 1910 should be prepared on a uniform basis and issued as a special publication under the title of the "Climatology of South Africa," while reports should be issued for each subsequent period of five years. Although the first portion of this scheme was duly carried out, no funds have yet been provided for publication. After amalgamation a short summary of weather conditions for each month was prepared and published in the *Government Gazette*, together with data for a small number of selected stations distributed over the Union. Since January, 1920, this form of publication has been altered and a separate small brochure entitled the "Monthly Weather Report" issued instead. This contains a summary of the leading features of the weather of each month, tabular statements of temperature and rainfall, etc., for a number of stations distributed as uniformly as possible over the Union, and is illustrated in each case by isohyetal and isobaric maps. Articles dealing with various matters that have formed the subject of special investigation are published in various journals from time to time, as well as those in the Official Year Book to which alterations and additions are made in practically each issue with the object of bringing the information as far as possible up to date.

2. **Meteorological Organization of the Union.**—Particulars of the Meteorological Service of the Union are given in the fifth issue of this *Year Book*.

3. **General.**—Although the Union of South Africa is situated between the fairly low latitudes of 22° and 35° S., its climate is cooler than that met with in similar latitudes in the Northern Hemisphere. In point of fact, the various parts of the sub-continent have a mean annual temperature corresponding to that found in Europe 7° to 10° further from the Equator. This amelioration of climate is mainly due to two causes: (1) the configuration of the country, and (2) the comparatively small land area, which admits of the winds from the vast surrounding oceans exercising a moderating influence over the country. Topographically, the Union of South Africa may be regarded as consisting of a series of four elevated plains or plateaux separated from each other by steep escarpments rising to a considerable elevation above the plains. This division into plateaux is most apparent on taking a section across the country from south to north, but is not so well defined on proceeding from the east or west. These plateaux are as follows:—

(1) The Coast Plateau or Coast Flats having an average elevation of 500 to 600 feet and varying in width from about thirty miles in South-West Africa to three or four or even less in the south-east of the Cape Province.

(2) The Southern or Little Karroo, a narrow table-land about fifteen miles in width, crossed from east to west by a series of parallel mountain ranges separated by narrow valleys; its average elevation is about 1,500 feet and it is separated from the coast belt by the Langeberg and Outeniqua Ranges.

(3) The Central or Great Karroo has an average elevation of between 2,000 and 3,000 feet. It is bounded on the west by the Cedarberg and Bokkeveld and on the south by the Witteberg, Zwartberg, and Zuurberg Ranges.

* By J. D. F. Gilchrist, M.A., B.Sc., Ph.D. (Marine Investigations of South Africa, Department of Agriculture, No. 21, 1902).

(4) The Northern Karroo or High Veld is the innermost plateau, comprising the greater part of the remainder of the Cape Province, the Orange Free State, and the major portion of the Transvaal. It is encircled on the west, south, and east, practically from the Limpopo to the Orange River, by the mountains of Namaqualand, the Roggeveld, Winterberg, Stormberg, and Drakensberg ranges, constituting the great escarpment. This plain has an elevation of about 4,000 feet rising in the north-eastern portions to 6,000 feet in the Transvaal High Veld, and 10,000 to 11,000 feet in Basutoland, and forms the main watershed of the country.

Outside of these areas lie the Transvaal Low Veld, Swaziland, Natal, Zululand, and the eastern uplands of the Cape Province, the native territories of the Transkei, the mountainous south-west, including the Cape Peninsula, and the west coastal area. The greater portion of South Africa has an elevation of over 3,000 feet, whilst the area below 1,500 feet consists merely of a narrow fringe around the coast.

4. **Temperature.**—Certain tables giving statistics of mean temperatures were published in Year Book No. 7. Owing to the plateau structure of South Africa, there is a gradual increase of altitude with decrease of latitude from the coast to the interior. The most noteworthy effect of this formation is a remarkable uniformity of mean annual temperature over the greater part of the Union. Thus, Cape Agulhas, the most southerly point in lat. 34° 50′ S. and 55 feet above sea-level, has a mean yearly temperature of 61·5 degrees, whilst Johannesburg (Joubert Park), in the Transvaal High Veld, in lat. 26° 11′ S., and at an elevation of 5,750 feet, has an annual temperature of 60·6° F., a difference of only 0·9° F. Again, considering the two capitals, Cape Town, in lat. 33° 56′ S., altitude 115 feet, at the south-western extremity of the country, has an average of 62·6° F.; whilst Pretoria, situated in a shallow valley in 25° 45′ S., at a height of approximately 4,400 feet, has a mean temperature of 63·5.° These temperatures are practically the same as the summer temperatures of England and about the same as those of many of the best-known health resorts of the Mediterranean, including the Riviera.

The warmest place in the Union is found in the Transvaal at Komatipoort, on the border of Portuguese East Africa, in lat. 25° 26′ S.; here at an elevation of 460 feet above sea-level the mean annual temperature is 73·1°. The coldest station is Disa Head, 2,496 feet, on Table Mountain, in the Cape Peninsula, where the yearly mean is only 54·7° F. There is thus a difference of only 18·4° between the warmest and coldest parts of the Union.

Places having a yearly temperature of 71° or over are confined to the coastal area of Natal and Zululand, together with the Low Veld in the eastern and northern Transvaal. On the other hand, annual temperatures of 60° or under are met with mostly at the stations on the eastern border of the Free State, in Basutoland, and along the southern border of the Free State and the adjoining portion of the Cape Province, the south and west of the northern Karroo, the coast of Namaqualand, the Warm Bokkeveld, in the south-west of the Cape Province, the higher portions of the Transkei and Zululand, and the eastern portion of the Transvaal High Veld.

5. **Hottest and Coldest Months.**—Notwithstanding the remarkable uniformity in these yearly temperatures, a considerable diversity in this important element of climate is exhibited by its variation throughout the year. These variations are fairly well indicated by the mean annual range, that is, by the differences between the hottest and coolest months. Seeing that the seasons in the Southern Hemisphere occur in the inverse order to those of the Northern Hemisphere, December to February constituting the summer and June to August the winter months, it follows that the coolest month is either June or July and the warmest, January or February, when the fruit season is at its height.

So far as has been ascertained up to the present, the annual range of temperature is least (5·9°) at Port Nolloth, on the west coast, where with an annual temperature of 57·5°, February the warmest month has a temperature of only 60·1°, whilst July the coolest month has a temperature of 54·2°. Contrasted with this, Fraserburg, in the northern Karroo, altitude 4,200 ft., has a mean annual temperature of 58·6°; January the warmest month has a temperature of 72·8° and July the coldest, 43·4°, giving a mean annual range of 29·4°. Between these two extremes of mean annual range, intermediate values are found, as a general rule increasing from the coast inland, being greater, however, in valleys than on mountains.

The mean annual range of the greater part of the Union of South Africa is practically the same as that of Great Britain, where the annual range varies from 14·5° at Lerwick, in the Shetland Isles, to 25·0° at Greenwich and 25·5° in London (Camden Square).

6. **Mean Diurnal Range.**—As indicated by the mean maxima and minima, the mean diurnal range shows considerable variation in much the same way as the mean annual range. Speaking generally, the mean daily range increases from the coast inland, Basutoland, the Northern Border and Bechuanaland having practically the same, and that the highest average value, viz., 31° to 32° F. The mean daily range, on the whole, is least (16·2°) over the Cape Peninsula and greatest (31·6°) in Basutoland. The smallest

range hitherto noted for an individual station is 10·4° at Cape Agulhas, the most southerly point of the Union, and the largest (35·2°) at Umsinga, on fairly level country, at an altitude of over 3,000 feet, in lat. 28° 42′ S. and long. 30° 28′ E.

The mean daily range, generally speaking, increases with increasing distance from the sea. Other factors come into play, however—such as situation, whether on a plain, on a mountain, or in a valley. On comparing the diurnal range of the hottest month with the coldest it is found that in the west the range is greater in summer than in winter; at a certain position the range is practically the same in both seasons; whilst in the eastern half of the country the range is greater in winter. This corresponds practically with the areas of winter and summer rainfall.

7. **Extremes of Temperature.**—Mean maximum temperatures of 90° and over are mostly confined to the three months December to February and are found in Natal, the eastern low veld of the Transvaal, the northern border of the Cape (west of the Orange Free State), and Clanwilliam, in the Olifants River valley, in the west coastal area of the Cape Province. Similar temperatures may be looked for in the Limpopo Valley, in the north of the Transvaal, but no data are yet available for that area. These high mean maxima occur first in November at Ladysmith and Umsinga, in Natal, and continue at Clanwilliam from January to March. Mean minimum temperatures of 32° F. or lower are met with during June and July along the southern and eastern edges of the innermost plateau; that is, the eastern portion of the Transvaal High Veld, the east of the Orange Free State, the lower portions of Basutoland, and contiguous portions of the north-east of the Cape Province, together with the south and west of the northern Karroo; over the last section, and in parts of Basutoland, mean minimum temperatures below freezing-point are continued into August. Similar conditions prevail during June and July in the north-east of the Orange Free State and the adjoining border of the Transvaal. Further south at Bloemfontein (Orange Free State) and Hopetown, in the northern border of the Cape, such means are limited to the month of July. The highest mean maximum is 94·3° for January at Ladysmith (Natal), and the next highest 93·9° for the same month at Kenhardt, in the Cape; whilst two years' records at Leribe, in Basutoland, give a mean minimum of 19·3° for July, with 25·3° in June, the next lowest mean minimum being 26·4° in July at Hanover, in the northern Karroo.

Temperatures of 90° to 95° are of frequent occurrence at most stations during the summer months, whilst 100° and over occasionally occur, particularly at valley stations near the coast, at the foot of the plateaux, and even at stations of 4,000 to 4,500 feet or lower altitude in the more northerly portions of the country. These high temperatures, however, last but a short time and are usually succeeded by thunderstorms with ensuing cool nights. Cases of sunstroke are comparatively rare, even Europeans working in the open fields without any special precautions. The extremes hitherto recorded are the exceptionally high maximum of 125° F. at Main during the prevalence of a hot wind on 28th January, 1903, and the unusually low minimum of 6·0° F. at Palmietfontein (Cape) in June, 1902, after the severe snowstorm of 9th to 12th June of that year. The absence of extremely low temperatures is due not only to the comparatively small land-area enabling the moderating effects of the sea to be felt practically all over the Union, but also to the shape of the sub-continent, which becomes wider from south to north.

8. **Frosts.**—Air temperatures below freezing-point, occasionally as low as 15° to 10° F., are liable to occur at inland stations between April and October, but more particularly between the end of May and the middle of September. As a matter of fact, frost is liable to occur in the interior during every month of the year and even killing frosts as early as March and as late as the end of October or even in November. The danger of damage to fruit, etc., from this cause will be apparent when it is stated that the first almond blossoms open on the Karroo, on an average, on the 1st August, the peach on the 28th August and the pear three to four weeks later. Although frosts of a severity to freeze standing water are rare in the coastal belt, comparatively light hoar-frost is not uncommon, as it has been found to occur, on an average, on seventeen days in the course of the year, over the Cape Flats, in the neighbourhood of Cape Town, and at least once at Durban. Over the Great Karroo, there are about seventy days per annum on which ground-frost occurs; ninety-six in the north-east of the Cape Province and sixty-three days at Bloemfontein. A great deal, however, depends on the situation of the station, whether on a hill or slope, or in a valley, as is shown by there being only five days, on an average, with frost at the Union Observatory, Johannesburg, situated on a ridge at an elevation of 5,925 feet; frosts are much more frequent in the adjoining valleys. When ice has been formed at places in the interior, it usually disappears in the course of the day, to be reformed at night.

9. **Shade Temperatures of 32° F. and Under.***—The length of the period between which such temperatures are liable to occur is greatest over an irregular area in the more southerly

* Three maps illustrating the occurrence of frosts in the Union will be found in Official Year Book No 6, together with a detailed tabular statement showing the duration and distribution of frosts.

portions of the innermost plateau, and part of the central Karroo. This area may be roughly indicated by a line drawn from Sutherland, in the south-west of the northern Karroo, north-eastward to Griquatown, then south-eastward towards Aliwal North. From here the line sweeps to the north in a curve bulging westwards in the neighbourhood of Thaba 'Nchu, in the Orange Free State, and then southwards to Delemont, in the Division of Maclear; thence the enclosing line trends in a west-south-west direction back to Sutherland. Within this area the frost period is between five and six months, even exceeding seven months at Sutherland. From this area the frost period diminishes in all directions, forming a series of zones roughly parallel with the coast.

The frostless belt is widest in the east and west, consisting in the former direction of the greater part of the low veld in the Transvaal, and continuing fairly wide to just north of the Tugela River. From this point it continues as a narrow belt round the coast. In the east the continuity of this frostless zone is broken by a portion of Swaziland, where occasional frosts are liable to occur in a period of from 27 to 80 days.

From what has been said above, in paragraph 8, it is evident that had it been possible to take into account the distribution and dates of occurrence of hoar-frost, the period within whose limits frosts usually occur, would in all likelihood, have been extended by a week or fortnight each way, while the so-called "frostless area" would have been considerably decreased, if not obliterated altogether.

As far as temperature is concerned, the greater part of the Union of South Africa possesses a climate well adapted for Europeans. This statement is borne out by the large number of men who have survived and been actively employed in various occupations for ten to thirty years after their lives had been practically despaired of by their medical advisers in Europe; also by the magnificent physique of men born in South Africa.

The hottest spells are of short duration, and in consequence of the attenuated state and dryness of the atmosphere can be borne usually with a feeling of less discomfort than a hot summer day in London. Sunstroke is comparatively rare, field-work being carried on without any special precautions, whilst hydrophobia is unknown. Perhaps the most trying period up-country is about the month of October just before the summer rains begin. The highest temperatures of the year are frequently recorded about this period, the atmosphere, however, being cooled later in the season to a considerable extent by the frequent thunderstorms. What may be termed the unhealthy areas where malaria is prevalent are mainly the northern and eastern low veld of the Transvaal, parts of the middle veld, portions of Swaziland, the warmer coast lands of Zululand, and, in a less degree, those of Natal. Under improved sanitary conditions and with better drainage, however, a number of areas formerly considered unhealthy have become practically free from malaria, and others are improving from year to year.

10. **Rainfall.**—The broad features of the distribution of rainfall over South Africa in regard to both time and place were shown by means of two maps (published in Official Year Books Nos. 6 and 7, to which reference should be made), the one giving the average annual rainfall and the other showing the percentage distribution between summer (October to March) and winter (April to September). Generally speaking the amount of precipitation decreases from east to west with areas of heavier rainfall along the south coast and the south-west, including the Cape Peninsula. Quantities exceeding 70 inches occur over very limited areas; thus, in the north of the Transvaal, in the Zoutpansberg Division, the Woodbush Forest Station shows an average of 71·97 inches falling on 138 days of the year, occasionally 100 inches being exceeded in a year. Another outstanding wet area is that of Evelyn Valley, in the Amatola Mountains in the south-east of the Cape Province, where the average annual fall is 70·20 inches on 150 days of the year, also exceeding 100 inches in some years. By far the wettest area discovered up to the present time, however, is that of the mountainous districts of Berg River Hoek and Wemmer's Hoek, near Paarl, in the south-west of the Cape Province. A few years' observations taken here showed that several stations in this area have annual quantities in the neighbourhood of 200 inches. St. Michael's, on Table Mountain, shows an average of 74·75 inches per annum. Omitting Walvis Bay, where the average annual rainfall is about three-quarters of an inch, the driest station is Port Nolloth, on the west coast, south of the Orange River mouth, where the average for 35 years is only 2·17 inches on 17 days.

Natal (including Zululand) is the best-watered Province, as a whole, although comparatively small portions of the Cape and Transvaal have an equal and even greater precipitation; such areas, however, are too small to affect materially the general statement.* The driest areas with less than 5 inches per annum are found in the Cape Province along the west coast and the Orange River, the neighbourhood of Van Wijks Vlei, and the Gouph, in the south-west of the northern Karroo. The average annual rainfall for the whole Union is approximately 19 inches.

Considerable variations in annual rainfall are also met with at places within a few miles of each other. This is particularly the case in the Cape Peninsula. Thus, the Fire Station in Cape Town itself has an average fall of 25·64 inches, whilst Platteklip, about

* A table illustrating the general distribution of rainfall was published in Official Year Book No. 6.

1½ miles to the south-east, also in the Cape Town valley, on the lower slopes of Table Mountain, has an average yearly total of 45·12 inches, almost double the former amount. Again, Robben Island, in Table Bay, has an annual average of 18·24 inches; Camps Bay, at the foot of the Table Mountain, on its western side, 24·25 inches; St. Michael's, on Table Mountain (approximate altitude, 3,050 feet), 74·75 inches; whilst Newlands (Montebello), on the eastern side of Table Mountain, has an average of 66·07 inches; the horizontal distance between Camps Bay and Newlands being about 6 miles. The great variation in rainfall over the Cape Peninsula, shown on the diagram, is due to the influence of the Table Mountain Range to the west, the rain being largely orographic. Again, George, on the south coast at the foot of the Outeniqua Mountains, has an average of 34·36 inches, whilst Ezeljagt, about 12 miles distant, in a north-easterly direction, but on the north side of the same range, has only 14·98 inches or about two-fifths of the amount at George. The village of Balfour, Cape, at an elevation of 2,100 feet, has an average of 28·08 inches, whilst on the top of the Katberg, at a height of 4,490 feet, the average is 53·28 inches. Many more examples of such variations could be enumerated, but those given will suffice.

On calculating the percentage amount of the annual rainfall that occurs during the six warmest months (summer), October to March, and during the six coolest, that is, the winter months (April to September), it is found that the Union may be sub-divided into three regions:—

(i) *Summer Rainfall Area*, having over 50 per cent. of its total rainfall from October to March;
(ii) *Winter Rainfall Area*, having over 50 per cent. of the total from April to September; and
(iii) *Constant Rainfall Area*, having its precipitation equally divided between these two periods.

By far the greater part of the country receives the bulk of its rainfall in summer, the winter rainfall area being confined to a comparatively narrow strip parallel with the west coast and the constant rainfall area to a much smaller belt along the south coast. The remainder of the country falls within the summer rainfall area, the area in the north and centre of the Transvaal having 90 per cent. or more during summer. From this area the proportion falling during summer decreases, to south, east, and west, but more particularly from north-east to south-west. The 50 per cent. line runs in a general north-north-west and south-south-east direction from a little south of Walvis Bay to the neighbourhood of Swellendam, thence eastwards some distance inland from the south coast, terminating on the coast to the north of Port Elizabeth.

A good idea of the distribution of precipitation from month to month over the various parts of the Union may be gathered from the accompanying table showing the average monthly rainfall at 283 stations distributed fairly uniformly over the country.

Taking the country as a whole, the rainfall is at its maximum in March, then decreases to the minimum in July, after which it rises to a secondary maximum in November.*

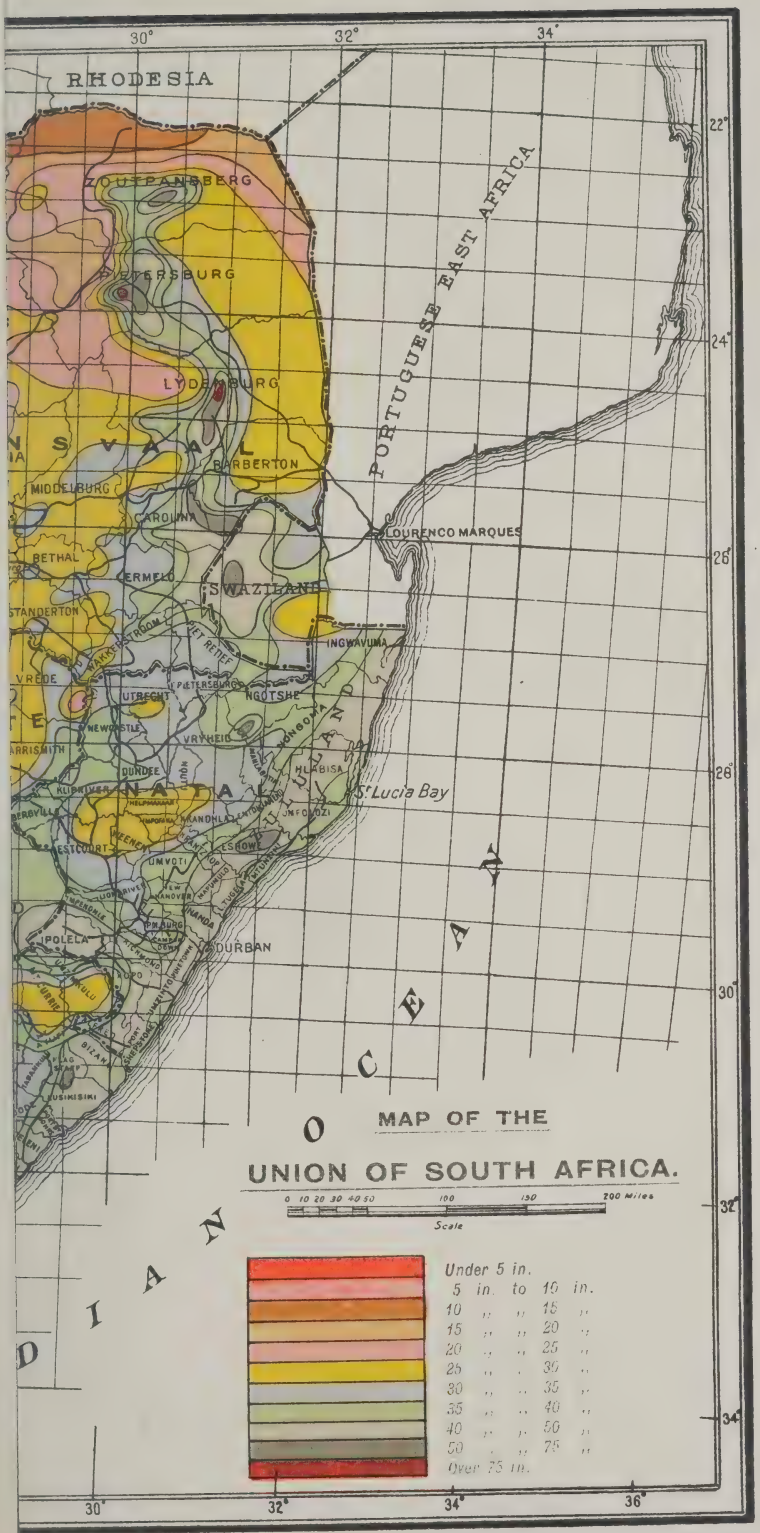
South Africa, in common with all sub-tropical countries, is visited from time to time by droughts, which are occasionally of great severity. On mapping the deviations from normal of the rainfall of each year since 1878, it has been found that of the forty-three years actually examined, there was no instance in which the whole of the country suffered from a deficiency of rainfall, nor, on the other hand, was there a case, even in years of abundant precipitation, in which some portion of the Union did not show a shortage. It is evident, therefore, that if there should have been any year in the past in which an excess or deficiency of rainfall has been common to the whole country, or should this occur in the future, such an event must be regarded as exceptional and very unusual.

In addition to the average rainfall map which has appeared in several previous issues of the Year Book, there is published in this issue a rain map of the Union showing the intensity of the rainfall during the year 1924. The deviation from normal during the year can thus be readily observed.

11. **Thunderstorms.**—By far the greater portion of the precipitation over the summer rainfall area occurs in connection with thunderstorms, most of which appear to proceed from some westerly point of the compass. The thunderstorm-frequency curve is at its maximum in February and falls to a minimum in June, rising thereafter to a secondary maximum in October. In other words, the two maxima of the thunderstorm curve occur one month earlier than the two maxima in the rainfall curve.

Thunderstorms increase in frequency towards the interior. Thus, two stations in the southern Karroo gave an average of 5 to 6 thunderstorms per annum; one station in the central Karroo showed an average of 19 per annum; whilst at Johannesburg, on the High Veld, the average is 61 per year, although the lightning recorder there showed that this phenomenon occurred within the radius of the instrument on 569 days in a period of 5 years, giving an average of 114 per annum. Again, in the Cape Peninsula, lightning, not necessarily associated with local thunderstorms there, was seen on an average of 11 days in the year.

* Figures giving the mean annual rainfall at all Union stations of continuous standing for ten years and over were published in Year Book No. 5. Yearly records of rainfall in nine towns from the earliest date of observation were also shown.



MAP OF THE

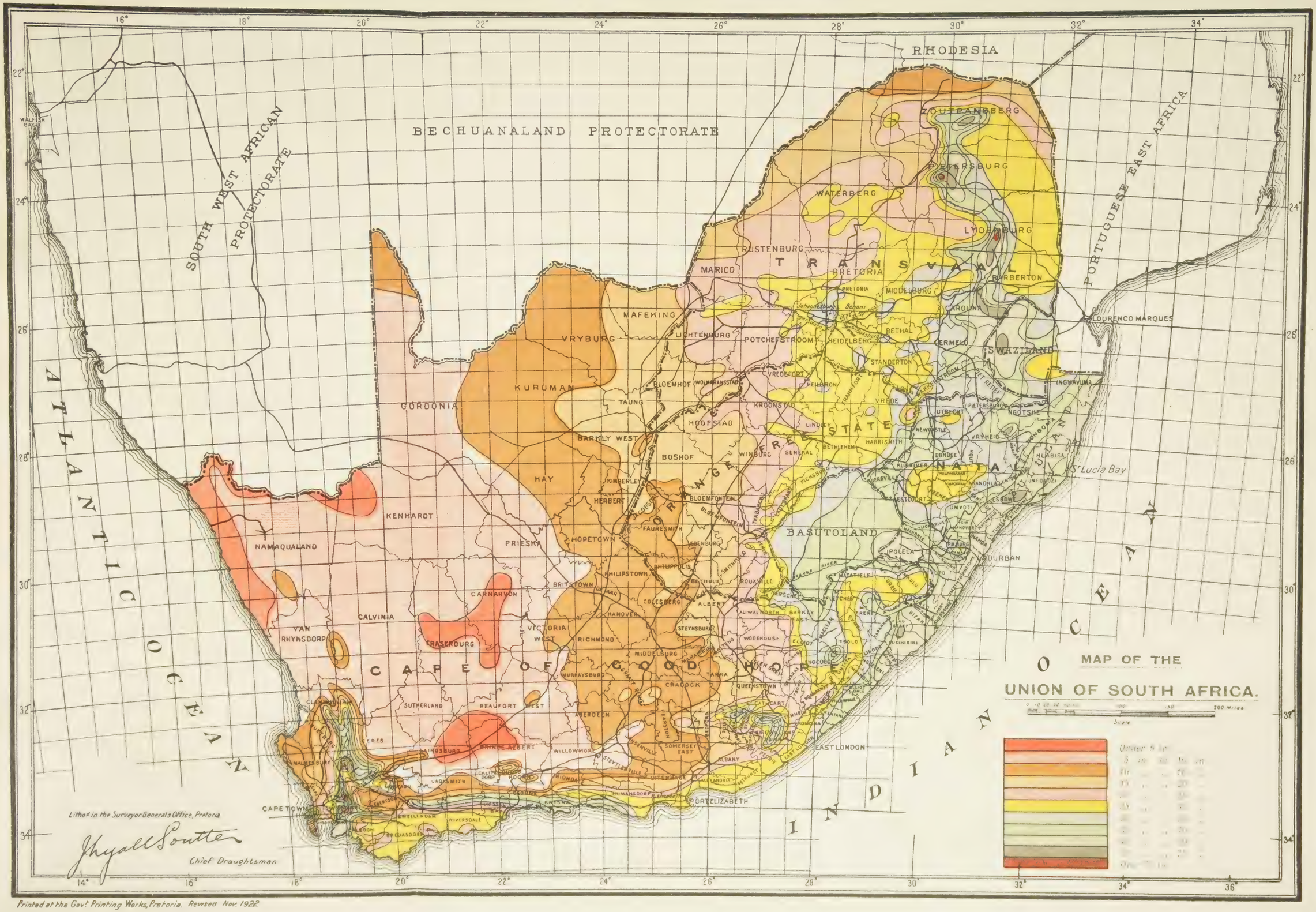
UNION OF SOUTH AFRICA.

0 10 20 30 40 50 100 150 200 Miles

Scale

Under 5 in.	
5 in.	to 10 in.
10 "	" 15 "
15 "	" 20 "
20 "	" 25 "
25 "	" 30 "
30 "	" 35 "
35 "	" 40 "
40 "	" 50 "
50 "	" 75 "
Over 75 in.	

AVERAGE ANNUAL RAINFALL.

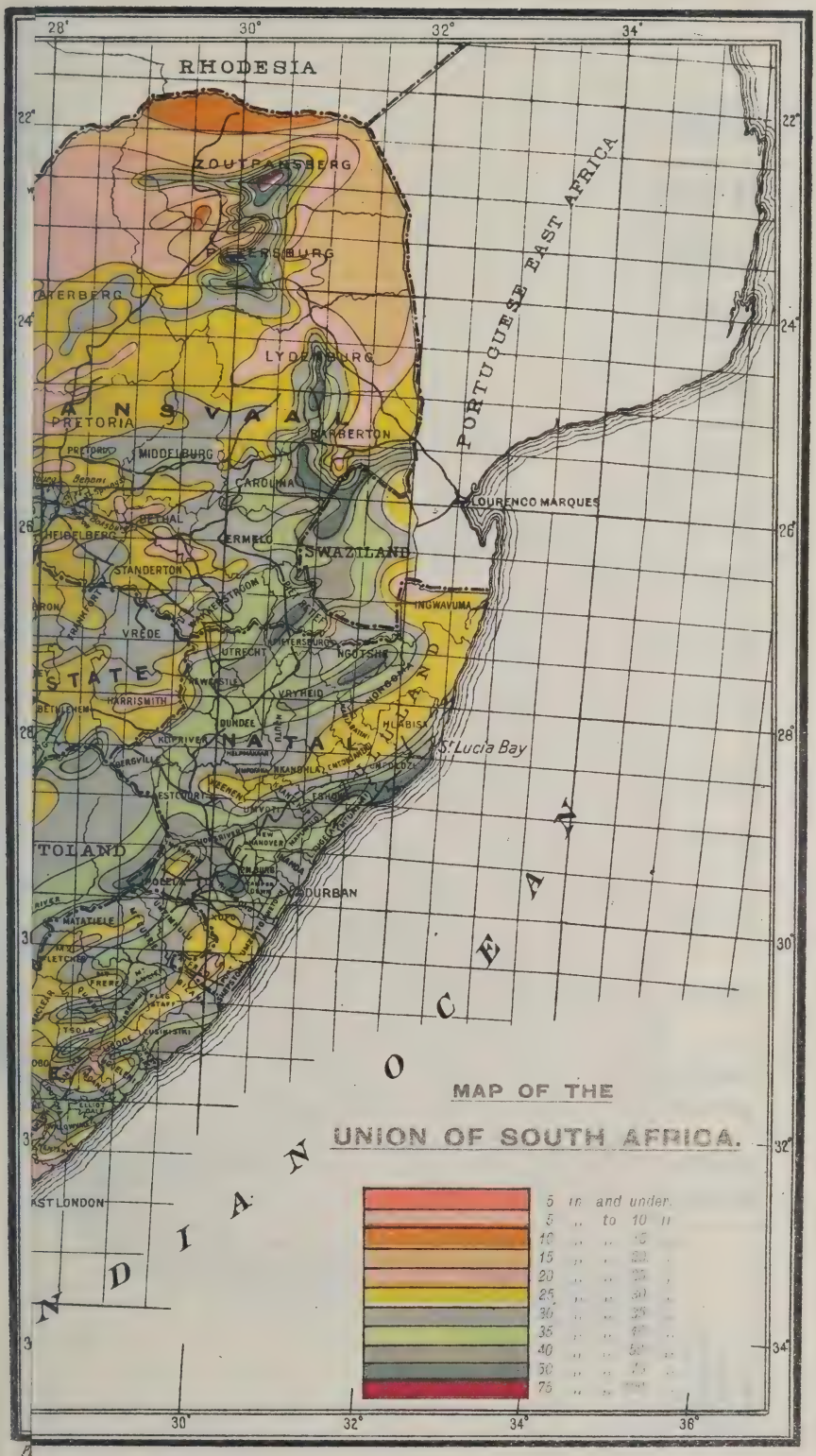


Lithod in the Surveyor General's Office, Pretoria

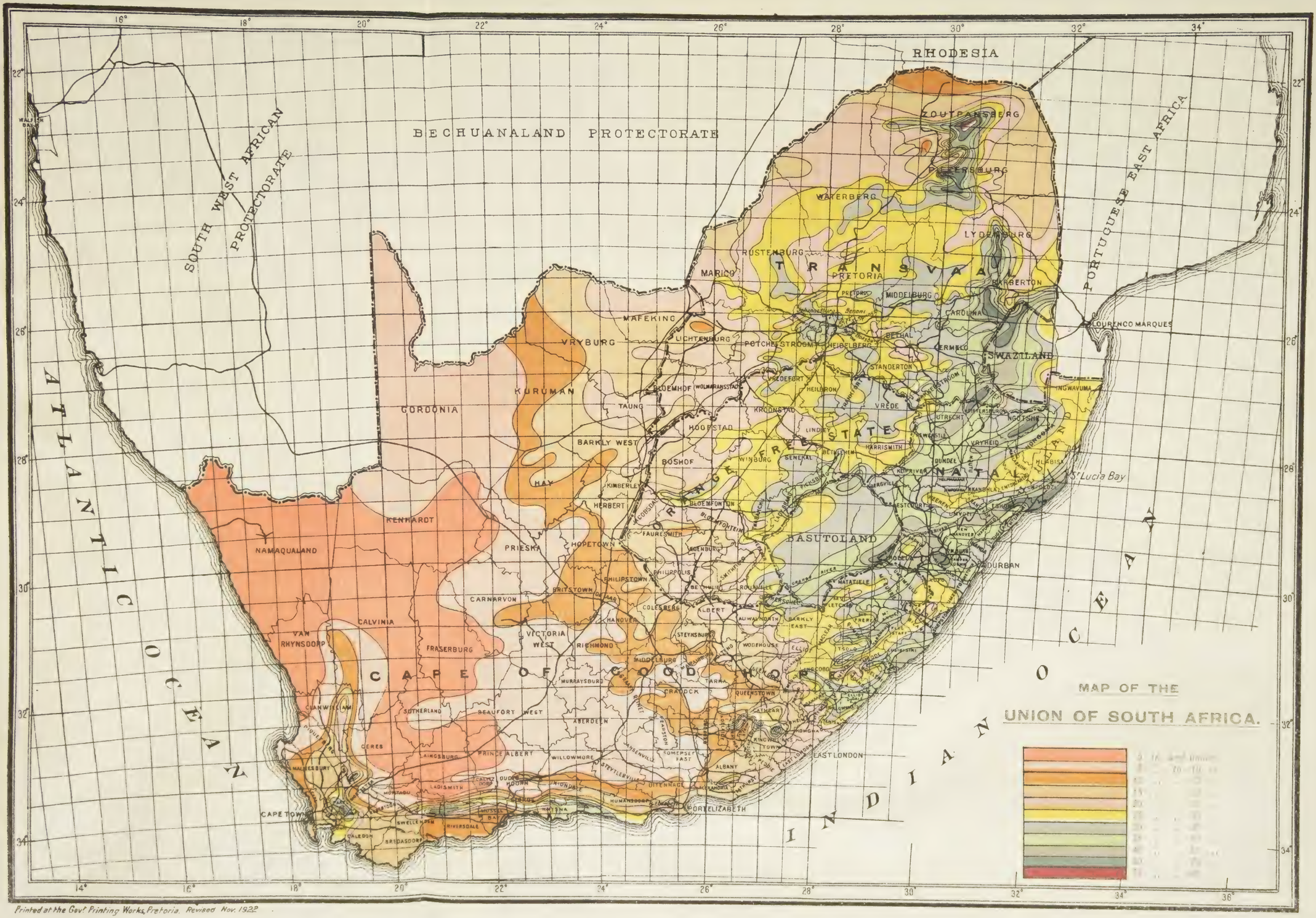
J. Hyall Soutter

Chief Draughtsman

Printed at the Gov't Printing Works, Pretoria. Revised Nov. 1922


RHODESIA
ZOUTPANSBERG
PIETERSBURG
LYDENBURG
PRETORIA
BARBERTON
MIDDELBURG
CAROLINA
LOURENCO MARQUES
PORTUGUESE EAST AFRICA
HEIDELBERG
ERMELO
SWAZILAND
STANDERTON
INGWAVUMA
VREDE
UTRECHT
VRYHEID
HARRISMITH
DUNDEE
NATAL
St. Lucia Bay
DURBAN
INDIAN OCEAN
MAP OF THE
UNION OF SOUTH AFRICA.
5 in. and under.
5 ,, to 10 ,,
10 ,, ,, 15 ,,
15 ,, ,, 20 ,,
20 ,, ,, 25 ,,
25 ,, ,, 30 ,,
30 ,, ,, 35 ,,
35 ,, ,, 40 ,,
40 ,, ,, 50 ,,
50 ,, ,, 75 ,,
75 ,, ,,

TOTAL ANNUAL RAINFALL.—1924.



Printed at the Govt. Printing Works, Pretoria. Revised Nov. 1922

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION.

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
CAPE AND BASUTOLAND.	° ′	° ′														
Aberdeen	32 28	24 03	39–40	1·46	1·80	1·89	0·96	0·82	0·38	0·29	0·41	0·89	1·02	0·97	1·24	12·13
Alexandria	33 38	26 25	36	1·90	1·93	2·00	2·45	2·23	1·81	1·61	2·54	2·66	2·70	3·05	2·67	27·55
Aliwal North	30 42	26 40	38	2·89	3·40	3·14	1·61	1·00	0·56	0·41	0·73	0·88	1·47	1·78	2·49	20·36
Barkly East	30 58	27 36	36–37	3·69	3·80	3·27	1·72	1·11	0·66	0·52	0·83	1·28	1·55	2·08	2·96	23·47
Barkly West	28 32	24 32	35	2·43	2·61	3·00	1·69	0·64	0·31	0·31	0·25	0·48	1·00	1·50	2·48	16·70
Beaufort West	32 21	22 36	43	1·09	1·22	1·83	0·87	0·71	0·36	0·27	0·31	0·66	0·70	0·71	0·85	9·58
Bedford	32 41	26 06	43	3·37	3·50	3·82	2·35	1·55	0·98	0·65	0·91	2·02	2·31	2·31	2·81	26·58
Brandvlei	30 28	20 29	6	0·48	0·68	0·93	0·51	0·39	0·27	0·37	0·10	0·18	0·17	0·31	0·32	4·71
Bredasdorp	34 33	20 02	43	0·93	1·12	1·60	1·66	2·18	2·03	2·01	2·12	1·80	1·84	1·32	1·18	19·79
Britstown	30 35	23 31	33–34	1·14	1·93	2·39	1·62	0·70	0·43	0·24	0·21	0·58	0·57	0·77	0·87	11·45
Burghersdorp	31 02	26 19	26	2·53	3·29	3·63	1·68	1·01	0·56	0·63	0·86	0·94	1·35	1·56	2·19	20·23
Cala	31 31	27 43	22	3·99	3·91	3·39	1·42	0·52	0·51	0·40	0·82	1·31	1·58	2·60	3·21	23·66
Caledon	34 14	19 25	43	0·86	0·78	1·29	1·79	2·60	2·56	2·54	2·53	2·07	1·93	1·14	0·90	20·99
Calvinia	31 29	19 46	37	0·37	0·42	0·80	0·97	1·12	1·06	0·91	0·87	0·61	0·50	0·38	0·22	8·23
Cape Agulhas	34 50	20 01	40	0·76	0·55	1·26	1·41	2·26	2·39	2·18	1·99	1·41	1·32	0·88	0·68	17·09
Cape Point	34 21	18 30	21	0·49	0·32	0·49	1·21	1·72	1·87	1·68	1·24	1·23	0·87	0·55	0·49	12·16
Cape Town—																
Fire Station	33 55	18 25	59	0·59	0·54	0·89	1·93	3·98	4·38	3·90	3·45	2·22	1·67	1·01	0·93	25·49
Maclear's Beacon	33 58	18 25	13	2·50	1·73	2·75	5·58	8·47	12·90	12·17	10·30	8·68	5·53	4·61	3·87	79·08
Royal Observatory	33 56	18 29	75	0·69	0·58	0·92	1·94	3·90	4·45	3·69	3·37	2·29	1·66	1·06	0·85	25·40
Carnarvon	30 58	22 08	43	1·02	1·26	1·54	0·88	0·62	0·33	0·21	0·31	0·29	0·44	0·54	0·45	7·89
Cathcart	32 18	27 10	41	3·77	4·22	3·79	2·17	0·90	0·57	0·64	0·71	1·39	2·16	2·65	3·20	26·17
Ceres	33 22	19 19	42	1·02	0·55	1·06	2·95	6·15	6·95	6·07	5·84	4·21	3·60	1·75	1·32	41·47
Clanwilliam	32 10	18 55	49	0·22	0·23	0·26	0·72	1·39	1·51	1·39	1·11	0·79	0·56	0·31	0·17	8·66
Colesberg	30 43	25 07	43	2·04	2·58	2·76	1·46	1·00	0·50	0·38	0·43	0·80	0·97	1·12	1·34	15·38
Cradock	32 10	25 38	42–44	2·08	2·31	2·33	1·35	0·88	0·46	0·32	0·41	0·73	1·03	1·20	1·37	14·47
Danger Point	34 37	19 18	20	0·97	0·81	1·26	1·57	2·98	3·40	2·99	2·99	2·55	1·97	1·33	0·98	23·80
Dordrecht	31 22	27 03	42	3·51	3·93	3·56	1·50	0·97	0·61	0·48	0·81	1·30	1·64	2·13	2·92	23·36
Dunmurry	28 18	22 42	28	1·82	2·70	3·13	1·71	0·64	0·30	0·26	0·31	0·35	0·69	0·79	1·45	14·15
East London	33 01	27 54	35–38	3·19	3·28	3·61	2·67	2·32	1·42	1·23	1·98	3·06	3·63	3·11	3·24	32·74
Elliotdale	31 57	28 42	29	3·02	3·31	3·46	1·99	1·30	0·92	0·46	0·67	2·47	2·90	2·56	3·02	26·08
Engcobo	31 41	28 00	30–31	4·41	4·43	4·49	2·08	1·05	0·69	0·46	0·76	1·84	2·88	3·06	4·64	30·79
Evelyn Valley	32 41	27 15	34	8·69	8·29	7·95	5·12	3·53	2·36	1·67	3·04	5·63	8·77	7·22	7·93	70·20
Fort Beaufort	32 46	26 40	42	2·39	2·99	2·73	1·97	1·26	0·67	0·66	0·82	1·62	2·17	2·23	2·14	21·65
Fraserburg	31 55	21 31	43	0·73	0·94	1·18	0·88	0·60	0·38	0·29	0·32	0·29	0·32	0·41	0·37	6·71
Garies	30 33	17 59	34	0·14	0·14	0·15	0·50	0·71	0·93	0·81	0·80	0·46	0·33	0·20	0·13	5·30
George	33 57	22 29	43	3·08	3·50	3·63	2·66	2·64	2·15	1·60	2·43	3·22	3·27	2·89	3·05	34·12
Graaff-Reinet	32 16	24 32	40	1·37	1·82	2·18	1·11	1·15	0·55	0·43	0·52	1·04	1·18	1·20	1·30	13·85
Grahamstown	33 18	26 32	43	2·53	2·79	3·18	2·29	2·07	1·37	1·14	1·56	2·43	3·07	3·08	2·52	28·04
Griquatown	28 51	23 15	36	1·76	2·21	2·58	1·53	0·73	0·40	0·21	0·25	0·37	0·77	0·84	1·25	12·90
Hanover	31 04	24 26	42	1·65	2·10	2·54	1·43	0·93	0·48	0·37	0·33	0·67	0·70	1·01	0·99	13·20
Herschel	30 37	27 09	32	4·21	4·05	4·19	2·44	1·24	0·73	0·43	0·90	1·34	2·00	2·17	3·51	27·21

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
CAPE AND BASUTOLAND—*continued.*	° ′	° ′														
Hofmeyr	31 38	25 47	21–23	1·71	2·54	2·42	1·16	0·82	0·40	0·25	0·31	0·91	1·00	0·90	1·61	14·03
Hopetown	29 37	24 05	43	1·89	1·87	2·73	1·09	0·86	0·36	0·26	0·25	0·43	0·73	1·07	1·02	12·56
Humansdorp	34 02	24 46	41	1·88	1·79	2·56	2·29	2·30	2·02	1·80	2·57	2·60	2·59	2·47	2·01	26·88
Idutywa	32 06	28 18	31	2·94	3·05	2·91	1·78	0·99	0·54	0·39	0·69	1·63	2·11	2·31	2·43	21·77
Jansenville	32 56	24 40	43	1·09	1·26	1·74	1·03	0·73	0·43	0·25	0·40	0·95	0·76	0·96	1·13	10·72
Katberg	32 29	26 40	39	5·87	5·99	5·17	2·99	1·78	1·09	0·94	1·44	2·85	4·61	4·64	5·61	43·01
Kenhardt	29 21	21 09	41–43	0·57	1·21	1·20	0·63	0·37	0·25	0·20	0·16	0·18	0·35	0·25	0·39	5·76
Kentani	32 30	28 18	31	3·11	3·80	3·49	2·52	1·55	1·08	0·53	1·06	2·72	3·99	3·20	3·84	30·89
Kimberley	28 44	24 46	36	2·33	2·64	3·01	1·41	0·65	0·28	0·30	0·28	0·58	1·12	1·48	1·97	16·05
King William's Town	32 52	27 23	51	2·54	3·29	3·10	2·16	1·46	0·88	1·00	1·09	1·81	2·53	2·50	2·73	25·09
Klipfontein	29 13	17 39	35	0·21	0·32	0·37	0·74	1·19	1·05	1·04	1·08	0·63	0·47	0·28	0·16	7·54
Knysna	34 03	23 03	39	2·10	2·12	2·54	2·22	2·54	2·14	2·15	2·49	2·86	2·72	2·29	2·40	28·57
Kokstad	30 33	29 26	36	4·52	4·24	3·53	1·61	1·02	0·47	0·23	0·64	1·33	2·03	3·39	4·03	27·04
Kuruman	27 25	23 27	15	3·40	3·32	3·18	1·32	0·57	0·19	0·21	0·17	0·36	0·38	1·26	2·00	16·66
Ladismith	33 29	21 17	43	1·04	1·14	1·57	1·43	1·26	1·11	1·01	1·08	1·25	1·12	1·34	0·91	14·26
Lady Frere	31 42	27 13	36	3·73	4·29	3·56	1·37	0·65	0·58	0·50	0·66	1·30	1·89	2·22	3·17	23·92
Laingsburg	33 12	20 54	18	0·17	0·31	0·83	0·44	0·35	0·48	0·38	0·37	0·29	0·28	0·17	0·40	4·47
Leribe	28 49	28 10	28–30	6·22	4·75	4·54	2·39	1·17	0·51	0·58	0·92	1·36	2·93	3·67	4·45	33·49
Lusikisiki	31 21	29 37	11	5·75	5·37	5·67	2·09	2·71	0·90	1·86	1·78	3·11	4·56	4·82	5·12	43·74
Maclear	31 04	28 21	27–30	6·13	5·50	4·59	1·91	0·89	0·36	0·40	0·92	1·78	2·46	3·56	5·08	33·58
Mafeking	25 52	25 39	19–20	4·23	3·69	3·28	1·72	0·38	0·04	0·40	0·43	0·62	1·16	2·59	3·60	22·74
Mafeteng	29 47	27 13	22	5·48	4·61	4·26	2·75	1·54	0·72	0·58	0·89	1·44	2·00	2·74	4·68	31·69
Malmesbury	33 28	18 43	43	0·44	0·35	0·54	1·50	2·70	2·81	2·58	2·52	1·95	1·33	0·73	0·48	17·93
Maseru	29 17	27 30	25	4·98	4·79	4·27	2·23	1·17	0·77	0·55	0·76	1·77	2·42	3·21	3·49	30·41
Matatiele	30 20	28 48	18	5·06	4·22	3·29	1·26	0·67	0·39	0·27	0·81	1·25	2·00	3·29	4·08	26·59
Middelburg	31 30	25 00	38	1·89	2·23	2·53	1·13	0·79	0·40	0·35	0·38	0·60	0·82	1·14	1·32	13·58
Middleton	32 57	25 49	41	1·49	1·61	2·01	1·53	0·96	0·62	0·42	0·55	1·07	1·12	1·29	1·42	14·09
Mohales Hoek	30 08	27 28	25	4·19	4·23	4·21	2·14	1·57	0·63	0·55	0·77	1·47	2·24	2·65	3·70	28·35
Molteno	31 23	26 22	29	2·89	3·15	3·68	1·53	1·00	0·74	0·35	0·56	1·04	1·37	1·83	2·62	20·76
Montagu	33 48	20 08	38	0·59	0·58	0·84	1·21	1·75	1·44	1·58	1·47	1·30	1·02	0·84	0·59	13·21
Morokwen	26 12	23 45	10	1·87	2·66	2·53	0·95	0·38	0·12	0·25	0·21	0·19	0·83	1·32	0·96	12·27
Mossel Bay	34 11	22 09	43	1·18	1·46	1·47	1·74	1·60	1·26	1·22	1·44	1·72	1·62	1·13	1·36	17·24
Mount Fletcher	30 42	28 30	28–30	4·83	4·39	3·67	1·53	0·83	0·49	0·25	0·69	1·49	1·94	2·78	4·24	27·13
Murraysburg	31 57	23 48	43	1·11	1·61	2·09	1·06	1·03	0·42	0·29	0·37	0·58	0·65	0·76	0·92	10·89
New Bethesda	31 52	24 34	30–31	1·87	2·32	2·09	1·23	0·55	0·54	0·26	0·52	0·94	1·07	1·31	1·50	14·20
Noltesville	28 58	22 06	12	0·56	1·44	1·68	0·94	0·33	0·23	0·29	0·14	0·03	0·27	0·44	0·30	6·65
O'okiep	29 36	17 52	35	0·21	0·31	0·41	0·67	1·01	1·02	0·80	0·94	0·66	0·43	0·20	0·17	6·83
Oudtshoorn	33 35	22 13	43	0·54	0·73	1·16	0·92	1·00	0·77	0·52	0·78	1·02	0·89	0·63	0·48	9·44
Paarl	33 45	18 57	42	0·83	0·53	0·96	2·78	5·01	5·69	4·66	4·84	3·30	2·35	1·19	0·93	33·07
Pearston	32 34	25 07	20	1·57	1·87	1·73	1·16	1·32	0·54	0·24	0·54	1·00	1·16	1·01	1·66	13·80
Peddie	33 13	27 07	42	1·91	2·35	2·58	2·16	1·65	1·10	0·90	1·29	1·93	2·53	2·43	2·02	22·85
Pella	29 02	19 09	43	0·23	0·64	0·66	0·31	0·26	0·16	0·07	0·16	0·22	0·17	0·12	0·16	3·16
Philipstown	30 25	24 30	43	1·69	2·19	2·74	1·26	0·95	0·46	0·29	0·36	0·61	0·71	0·96	1·23	13·45
Piquetberg	32 53	18 45	41	0·55	0·48	0·56	1·60	3·07	3·15	2·84	2·90	2·26	1·76	0·99	0·68	20·84

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION—*continued*.

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
CAPE AND BASUTOLAND—*continued*.	° ′	° ′														
Port Alfred	33 36	26 54	37	1·88	1·75	2·12	2·50	2·36	1·71	1·46	2·13	2·98	2·80	2·57	2·28	26·54
Port Elizabeth	33 58	25 37	55	1·20	1·34	1·75	1·92	2·37	1·67	1·87	2·12	2·27	2·21	2·03	1·62	22·37
Port Nolloth	29 16	16 52	34	0·07	0·05	0·16	0·24	0·42	0·34	0·33	0·29	0·21	0·12	0 06	0·07	2·36
Port St. Johns	31 38	29 35	32	4·92	5·81	5·59	3·87	2·93	1·92	1·11	2·03	4·20	6·69	5·13	5·81	50·01
Prieska	29 39	22 45	43	1·23	1·57	2·20	1·36	0·61	0·26	0·21	0·19	0·23	0·44	0·60	0·75	9·65
Prince Albert	33 11	22 02	43	0·49	0·81	1·24	0·88	1·06	0·62	0·34	0·49	0·61	0·60	0·48	0·48	8·10
Qacha's Nek	30 19	27 48	25	6·20	6·20	4·31	2·20	1·00	0·59	0·29	0·89	1·70	2·83	3·84	6·10	36·15
Queenstown	31 54	26 52	48	3·38	4·04	3·43	1·64	0·88	0·60	0·54	0·57	1·07	1·59	2·12	2·95	22·81
Richmond	31 25	23 57	42	1·46	2·08	2·58	1·45	1·14	0·58	0·34	0·33	0·55	0·97	0·82	0·97	13·27
Rietfontein	26 45	20 02	13	0·73	1·85	2·05	0·71	0·33	0·05	0·06	0·08	0·07	0·20	0·31	0·67	7·11
Riversdale	34 06	21 16	33	1·15	1·28	1·82	1·72	1·55	1·42	1·22	1·44	1·62	1·63	1·35	1·27	17·47
Robertson	33 47	19 53	43	0·58	0·72	0·89	1·25	1·34	1·43	1·37	1·24	1·27	1·03	0·73	0·66	12·53
Somerset East	32 44	25 35	43	2·79	3·26	3·64	2·12	1·46	0·99	0·73	0·98	1·99	2·27	2·41	2·83	25·47
Somerset West	34 05	18 51	35	0·87	0·45	1·04	1·95	3·88	4·10	3·54	3·35	2·60	1·95	1·17	0·64	25·54
Sterkstroom	31 33	26 33	35	3·13	3·18	2·95	1·42	0·79	0·72	0·45	0·60	0·98	1·38	1·99	2·35	19·94
Steynsburg	31 18	25 49	41–43	2·41	2·62	2·83	1·42	0·95	0·59	0·42	0·46	0·91	0·96	1·25	1·86	16·68
Steytlerville	33 20	24 19	28	0·82	1·24	1·63	0·89	0·64	0·37	0·21	0·48	0·66	0·78	0·80	0·79	9·31
Strawberry Hill	33 59	20 52	23	3·16	4·67	4·26	3·66	2·73	2·42	2·56	2·62	3·61	4·04	3·37	4·12	41·22
Stutterheim	32 34	27 27	36	3·92	4·34	4·06	2·30	1·15	0·85	0·59	0·97	1·89	3·07	2·95	3·74	29·83
Sutherland	32 25	20 42	42	0·50	0·67	0·94	0·98	1·26	1·06	0·96	0·90	0·65	0·63	0·44	0·39	9·38
Swellendam	34 04	20 27	40	2·41	2·76	3·06	2·79	3·05	2·18	2·17	2·32	2·76	3·02	2·45	2·88	31·85
Tabankulu	30 58	29 19	15	4·41	4·80	3·37	1·67	2·19	0·63	0·89	1·18	1·85	2·75	3·26	4·11	31·11
Tarkastad	32 00	26 15	43	2·56	2·69	3·13	1·56	1·04	0·67	0·52	0·61	0·99	1 27	1·50	1·97	18·51
Taung	27 32	24 47	20	3·31	3·40	3·20	1·21	0·36	0·19	0·19	0·22	0·46	1·15	1·43	2·22	17·34
Teyateyaneng	29 08	27 45	25	5·77	3·99	4·03	2·20	1·04	0·47	0·49	0·76	1·23	2·52	2·76	3·92	29·18
Tsomo	32 09	27 42	30	3·16	3·33	3·13	1·62	0·73	0·63	0·37	0·70	1·26	2·03	1·92	3·21	21·99
Uitenhage	33 46	25 25	43	1·11	1·60	2·08	1·65	1·34	1·02	0·76	1·31	1·75	1·65	1·68	1·29	17·34
Umtata	31 35	28 46	38	3·56	3·62	3·33	1·81	1·18	0·96	0·52	0·76	1·76	2·43	2·50	3·01	25·44
Umzimkulu	30 15	29 56	33–35	3·85	4·30	3·69	1·91	0·95	0·43	0·28	0·88	1·53	2·58	3·46	4·01	27·87
Uniondale	33 39	23 09	43	0·68	0·95	1·47	1·22	1·51	1·10	0·97	1·30	1·31	1·16	1·00	0·64	13·39
Upington	28 27	21 15	32	0·83	1·04	1·92	0·85	0·48	0·09	0·12	0·10	0·14	0·44	0·45	0·72	7·18
Van Rhynsdorp	31 35	18 46	30	0·07	0·18	0·21	0·75	0·91	0·84	0·83	0·73	0·49	0·41	0·16	0·13	5·71
Van Wyksvlei	30 21	21 49	35	0·57	1·26	1·49	0·78	0·46	0·26	0·21	0·19	0·16	0·35	0·37	0·47	6·57
Venterstad	30 47	25 47	38	2·14	2·85	3·13	1·58	1·11	0·74	0·43	0·51	0·76	1·19	1·32	1·84	17·60
Victoria West	31 24	23 07	38	1·05	1·90	2·10	0·98	0·82	0·38	0·28	0·27	0·53	0·61	0·60	0·89	10·41
Vryburg	26 57	24 44	29–33	4·15	3·61	3·30	1·37	0·57	0·23	0·25	0·30	0·37	1·00	1·45	2·53	19·13
Warrenton	28 07	24 52	10	1·99	2·91	2·77	0·90	0·49	0·16	0·40	0·27	0·48	1·01	1·33	1·50	14·21
Williston	31 21	20 55	7	0·33	1·14	0·62	0·80	0·33	0·15	0·15	0·25	0·11	0·10	0·70	0·30	4·98
Willowmore	33 17	23 30	43	1·00	0·94	1·52	0·93	0·91	0·53	0·38	0·57	0·49	0·82	0·65	0·81	9·55
Worcester	33 39	19 26	48	0·27	0·35	0·54	1·09	1·70	1·94	1·83	1·56	1·27	1·12	0·49	0·39	12·55

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
TRANSVAAL AND SWAZILAND.	° ′	° ′														
Barberton	25 45	31 04	25–27	6·51	4·41	3·81	1·89	0·93	0·22	0·30	0·58	1·02	2·47	4·91	4·74	31·79
Belfast	25 41	30 02	15–16	6·13	3·93	4·38	1·51	0·75	0·22	0·50	0·76	3·45	5·55	5·69	33·09	
Bethal	26 27	29 28	17–18	5·29	4·10	3·31	1·15	0·65	0·12	0·15	0·57	0·72	3·45	5·43	5·23	30·17
Blaauwboschkuil	25 05	28 18	8–9	4·17	2·86	3·27	0·87	0·60	0·09	0·19	0·62	0·18	1·97	4·42	3·45	22·69
Bloemhof	27 39	25 36	17–18	3·32	3·51	2·89	1·06	0·54	0·18	0·26	0·30	0·69	1·14	1·84	2·17	17·90
Bothasfontein	26 00	28 05	12–14	5·40	4·63	3·96	1·20	0·56	0·10	0·35	0·85	0·65	2·92	4·71	4·73	30·06
Brakfontein	25 40	26 41	10–13	5·01	3·97	3·66	1·11	0·53	0·11	0·37	0·61	0·54	1·68	3·48	4·28	25·35
Broederstroom	23 48	29 59	5–6	16·29	19·24	14·36	3·85	2·87	0·60	1·31	1·76	1·97	4·79	9·48	12·73	89·25
Busby	26 17	30 37	10–11	6·50	3·87	4·10	1·53	0·94	0·18	0·33	0·71	1·25	4·34	5·96	5·86	35·57
Carolina	26 04	30 07	13–14	5·48	3·20	3·34	1·46	0·69	0·14	0·20	0·59	0·89	3·90	5·34	5·31	30·54
Clermont	23 32	28 07	9–12	3·94	2·37	3·18	0·82	0·54	0·01	0·44	0·33	0·12	1·29	3·03	3·23	18·90
Cranbourne	27 10	29 29	17–18	5·10	3·93	3·08	1·23	0·69	0·12	0·28	0·73	1·02	3·76	5·60	5·26	30·80
Crocodile Pools	24 44	25 49	12–15	3·53	3·09	3·02	0·87	0·59	0·03	0·15	0·25	0·42	1·46	2·07	3·05	18·53
Cumberland	24 11	26 54	14–15	3·45	3·18	2·07	0·61	0·58	0·02	0·13	0·21	0·24	1·38	2·44	3·69	18·00
Damplaats	23 43	29 44	6–7	4·37	1·79	1·88	0·32	0·43	0·07	0·31	0·20	0·04	1·04	2·66	3·38	16·49
Diepkuil East	27 19	26 21	13–14	3·51	3·71	2·84	0·87	0·51	0·18	0·28	0·29	0·52	1·54	2·42	2·80	19·47
Doornbult	26 48	25 38	9–11	4·52	4·02	3·09	1·19	0·57	0·18	0·36	0·53	0·35	1·58	1·92	3·18	21·49
Downs	24 09	30 11	7–8	9·15	7·05	5·08	0·94	1·09	0·24	0·43	0·77	0·72	2·98	5·39	6·52	40·36
Dullstroom	25 25	30 06	13–16	5·86	4·86	3·65	1·56	1·02	0·16	0·06	0·47	0·73	3·40	4·61	5·22	31·60
Ermelo	26 31	29 59	23	5·58	2·94	3·42	1·10	0·68	0·18	0·22	0·69	0·98	4·88	4·99	5·50	31·16
Forbes Reef	26 09	31 06	12–14	7·71	7·24	5·51	2·16	1·27	0·50	0·54	1·12	1·06	4·30	6·19	6·46	44·06
Ganskuil	24 50	26 44	12–14	4·82	3·66	3·32	0·68	0·58	0·03	0·14	0·48	0·58	1·68	3·13	3·61	22·71
Geluk	27 14	31 22	5	5·50	4·78	4·62	1·13	0·97	0·19	0·34	1·32	1·65	3·98	5·87	5·60	35·95
Geysdorp	26 32	25 18	7	3·08	3·11	2·18	0·79	0·33	0·15	0·36	0·06	0·30	1·42	2·27	2·24	16·83
Godwan River	25 35	30 38	13–15	5·92	4·59	4·37	1·61	0·51	0·41	0·21	0·42	0·53	3·02	5·11	6·43	33·13
Good Hope	24 09	29 20	5	5·06	2·96	3·10	0·54	0·66	0·08	0·26	0·42	0·20	2·46	4·26	4·28	24·28
Graspan	27 40	25 08	7–8	2·59	3·06	3·08	0·98	0·39	0·15	0·38	0·23	0·34	1·17	1·77	2·06	16·20
Groenfontein	24 02	28 47	11–13	6·71	3·07	3·76	0·84	0·92	0·11	0·18	0·50	0·24	1·80	4·59	4·81	27·53
Grootvlei	24 30	28 45	10–12	5·03	2·71	3·45	0·78	0·71	0·14	0·21	0·30	0·25	1·85	4·81	3·32	23·56
Heidelberg	26 30	28 22	17–18	4·73	4·57	3·70	1·08	0·52	0·08	0·30	0·48	0·82	2·46	5·25	4·20	28·19
Hermanus Doorns	24 09	27 47	13–15	5·73	4·32	2·83	0·78	0·48	0·02	0·12	0·38	0·27	1·56	3·19	3·96	23·64
Hlatikulu	26 58	31 20	15–16	7·96	6·44	4·52	2·38	1·22	0·19	0·52	1·20	1·95	5·12	6·29	7·86	45·65
Holfontein	26 09	27 27	12–14	4·41	3·69	3·37	0·74	0·53	0·14	0·26	0·44	0·80	2·15	3·16	3·51	23·20
Johannesburg	26 11	28 03	32–33	6·30	5·31	4·16	1·84	0·74	0·13	0·33	0·52	0·94	2·55	4·96	5·32	33·10
Kaapsche Hoop	25 35	30 46	22–23	11·71	8·99	7·36	2·85	1·05	0·38	0·58	1·16	1·64	4·13	7·40	9·54	56·79
Kaapmuiden	25 32	31 21	13–16	5·17	4·92	2·57	1·49	0·43	0·13	0·20	0·32	0·81	1·98	3·55	4·31	25·88
Karina	26 06	29 49	10–11	5·68	3·14	3·06	1·48	0·58	0·18	0·29	0·62	0·68	3·62	4·90	5·61	29·84
Komatipoort	25 26	31 56	17–18	5·16	5·18	4·61	1·79	0·76	0·24	0·13	0·49	0·62	1·92	3·14	4·23	28·45
Koppieskraal	26 53	27 22	15–16	3·95	3·61	3·24	1·36	0·76	0·14	0·17	0·42	0·55	2·47	3·59	3·68	23·94
Kreylingspost	25 38	27 57	12–13	5·32	3·96	3·51	0·93	0·76	0·13	0·27	0·75	0·45	2·47	4·46	4·32	27·33
Krugersdorp	26 06	27 46	16–17	5·91	5·36	3·72	1·03	0·52	0·10	0·25	0·55	0·78	2·46	4·50	4·76	29·94
Kuilfontein	25 48	26 21	12–14	5·41	4·42	3·98	1·29	0·79	0·07	0·39	0·54	0·48	1·76	3·79	4·59	27·51

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
TRANSVAAL AND SWAZILAND—*continued.*	° ′	° ′														
Langsluit	26 23	29 10	6–7	5·67	2·76	3·55	0·55	0·55	0·08	0·19	0·67	0·72	2·76	5·70	5·79	28·99
Leeuwpoort	26 25	27 31	11–12	5·65	3·38	3·76	0·92	0·75	0·10	0·26	0·54	0·75	2·27	4·09	4·37	26·84
Leipzig	23 08	28 54	5–6	4·91	3·65	4·95	0·16	0·52	0·09	0·05	0·17	0·24	1·69	4·27	3·33	24·03
Lichtenburg	26 10	26 10	15–18	4·28	3·83	3·58	1·31	0·52	0·10	0·36	0·32	0·56	1·63	2·93	3·53	22·95
Lydenburg	25 06	30 27	15–17	4·98	3·63	2·53	1·17	0·66	0·05	0·16	0·38	0·34	2·42	3·89	4·66	24·87
Mankaiana	26 40	31 04	11–12	7·04	5·11	4·58	1·72	0·91	0·20	0·43	0·87	1·51	4·18	5·73	5·28	37·56
Maquabie	26 58	30 00	12–14	5·01	3·23	3·10	1·12	0·55	0·10	0·19	0·66	0·96	4·72	5·24	6·25	31·13
M'babane	26 19	31 09	17–18	10·53	8·12	7·11	2·55	1·25	0·44	0·57	1·24	1·92	5·16	7·18	8·43	54·50
Middelburg	25 46	29 28	16–18	5·27	4·25	3·79	1·22	0·68	0·15	0·08	0·46	0·59	3·02	5·74	4·73	29·98
Mooimeisjesfontein	26 05	28 54	7–8	4·62	3·00	2·81	0·60	0·38	0·05	0·18	0·70	0·61	2·27	4·67	4·82	24·71
Natalspruit	26 18	28 09	17	5·47	4·56	4·29	1·20	0·69	0·12	0·31	0·55	0·92	2·56	5·21	5·05	30·93
Oakdale	26 51	28 52	8–10	4·83	3·66	2·78	0·84	0·46	0·10	0·31	0·71	0·72	3·30	5·41	4·36	26·87
Pietersburg	23 54	29 28	17–18	4·15	3·19	2·66	0·86	0·44	0·04	0·19	0·28	0·24	2·03	3·25	4·19	21·52
Piet Retief	27 00	30 48	16–18	6·33	4·83	4·16	1·85	0·67	0·13	0·29	0·73	1·37	4·50	5·71	6·12	36·69
Pigeonhole	23 56	30 07	8–10	12·48	9·55	7·42	2·28	1·33	0·20	0·73	0·73	0·72	3·04	5·86	7·67	52·01
Piggs Peak	25 58	31 15	17–18	9·74	8·76	6·89	2·55	1·16	0·38	0·46	1·08	1·54	4·25	6·94	7·26	51·01
Pilgrims Rest	24 54	30 44	28–29	8·37	7·84	5·81	2·24	1·17	0·32	0·38	0·57	0·93	2·14	4·53	5·79	40·09
Pisanghoek	23 00	30 05	12–13	7·96	8·21	5·10	1·74	1·47	0·43	0·54	0·41	0·40	1·84	3·92	4·70	36·72
Pokwani	24 52	29 45	14–15	5·88	2·95	3·57	1·24	0·57	0·06	0·19	0·50	0·43	2·94	4·98	4·71	28·02
Poortje	26 54	25 26	17–18	3·49	3·61	3·22	0·97	0·51	0·10	0·18	0·33	0·35	1·22	1·36	2·31	17·65
Potchefstroom	26 44	27 05	18	4·05	3·79	2·85	1·32	0·67	0·18	0·28	0·60	0·71	2·08	3·33	4·07	23·93
Potgietersrust	24 11	29 01	17–18	5·89	3·80	3·65	0·80	0·57	0·09	0·13	0·34	0·27	1·78	4·40	4·30	26·02
Pretoria	25 45	28 12	18–19	5·70	4·42	3·67	1·19	0·57	0·07	0·20	0·60	0·44	2·58	5·07	4·59	29·10
Ranches Limited	26 06	31 46	8–9	4·93	4·85	3·29	1·36	0·59	0·45	0·35	0·97	1·06	2·32	3·90	4·10	28·17
Reserve	25 15	31 39	11–14	3·93	3·90	2·74	1·31	0·75	0·12	0·19	0·51	0·28	1·61	2·84	3·62	21·80
Rietvlei	26 36	29 07	7–8	5·08	2·94	3·43	1·33	1·00	0·08	0·19	0·47	0·50	3·09	4·74	4·79	27·64
Rooiberg	24 50	27 46	13	5·61	3·65	3·25	0·85	0·72	0·05	0·22	0·71	0·33	1·65	4·15	3·86	25·05
Rustenburg	25 40	27 14	16–18	5·13	4·23	4·02	0·84	0·59	0·11	0·34	0·54	0·61	2·24	3·69	4·38	26·72
St. Joseph's Mission	26 27	31 28	7–8	5·87	5·11	4·87	1·03	0·67	0·17	0·14	1·37	1·51	4·09	5·52	5·09	35·44
Schweizer Reneke	27 11	25 20	16–17	3·16	4·15	3·02	1·03	0·54	0·16	0·33	0·16	0·49	1·07	2·26	2·05	18·42
Settlers	24 58	28 32	15–17	4·92	3·16	3·50	0·88	0·47	0·08	0·15	0·59	0·24	1·76	4·42	4·24	24·41
Sibasa	22 55	30 25	17	12·50	9·98	8·74	2·06	1·08	0·25	0·50	0·44	1·04	2·67	5·23	8·31	52·80
Springs	26 15	28 26	15–17	5·01	3·94	3·35	1·19	0·56	0·11	0·18	0·43	0·90	2·50	4·77	4·22	27·16
Stegi	26 28	31 58	6–8	6·34	5·66	3·96	2·68	1·32	0·38	0·54	0·83	1·43	3·54	4·11	5·30	36·09
Steynsdorp	26 08	30 58	11–12	6·17	4·28	3·35	1·39	0·68	0·25	0·31	0·67	0·75	3·22	5·34	6·39	32·80
Strathmore	26 50	26 37	17–18	3·88	3·81	3·30	1·57	0·58	0·17	0·30	0·43	0·64	1·77	2·89	3·78	23·12
Strydkraal	27 03	29 43	7–10	5·46	3·64	3·23	1·01	0·75	0·13	0·26	0·80	0·94	4·19	5·52	4·85	30·78
Twenty-four Rivers	24 15	28 17	16–17	5·45	3·57	3·03	0·96	0·57	0·04	0·14	0·40	0·48	1·70	3·70	4·49	24·53
Vaalhoek	24 44	30 48	11–12	4·76	4·80	3·54	1·32	0·84	0·12	0·31	0·27	0·28	1·60	3·78	4·00	25·62
Ventersdorp	26 19	26 50	15–16	4·49	3·98	3·20	1·19	0·46	0·09	0·27	0·38	0·72	1·96	2·83	4·10	23·67
Vereeniging	26 40	27 56	19–20	5·02	4·45	3·31	1·72	0·56	0·07	0·23	0·50	0·68	2·55	4·31	4·22	27·62
Vleeschfontein	24 48	26 18	10–11	4·37	3·29	3·25	0·89	0·83	0·03	0·25	0·54	0·36	1·66	3·13	3·73	22·33
Vleiplaats	26 47	29 45	16–18	5·03	4·07	3·26	1·18	0·54	0·20	0·22	0·52	0·76	3·46	5·25	5·03	29·52

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	° ′	° ′														
TRANSVAAL AND SWAZILAND—*continued.*																
Wakkerstroom	27 21	30 08	15–17	5·63	4·75	3·55	1·27	0·78	0·16	0·33	0·81	1·06	3·62	5·57	4·73	32·26
Weltevreden	26 49	30 53	8–9	6·51	4·97	3·48	1·10	0·76	0·21	0·14	1·11	1·78	4·05	5·82	5·92	35·85
Wilge River	25 49	28 51	14–15	5·05	3·87	3·83	1·16	0·54	0·19	0·10	0·73	0·47	2·64	4·25	4·54	27·37
Witbank	25 53	29 12	16–17	6·23	4·16	2·87	1·35	0·54	0·11	0·26	0·62	0·51	2·88	5·86	4·57	29·96
Wolhuterskop	25 42	27 42	15–16	6·25	4·44	4·06	0·90	0·63	0·06	0·30	0·79	0·45	2·52	4·91	4·59	29·90
Wolmaransstad	27 12	25 59	14–17	3·62	4·16	3·22	1·21	0·58	0·16	0·21	0·26	0·47	1·43	2·16	2·87	20·35
Zeerust	25 32	26 05	16–18	4·28	4·35	3·56	1·27	0·68	0·07	0·20	0·27	0·50	1·56	3·65	3·75	24·14
Zwartkoppies	25 47	28 23	7–8	5·07	3·92	3·50	0·47	0·63	0·10	0·33	0·86	0·59	2·25	4·84	4·58	27·14
ORANGE FREE STATE.																
Bethlehem	28 14	28 18	15–17	4·32	3·95	3·34	1·34	0·79	0·15	0·35	0·64	1·12	2·29	2·80	3·86	24·95
Bethulie	30 30	25 58	30–34	2·76	3·36	2·92	1·45	0·89	0·58	0·38	0·46	0·73	1·24	1·29	2·40	18·46
Bloemfontein	29 07	26 12	37	3·76	3·31	3·57	1·82	1·06	0·37	0·36	0·52	0·86	1·69	2·09	2·27	21·68
Boshof	28 32	25 14	16–18	3·16	3·03	3·60	1·47	0·70	0·22	0·26	0·55	0·88	1·10	2·23	2·04	19·24
Brandfort	28 42	26 28	8–13	3·04	3·19	2·82	0·82	0·69	0·25	0·49	0·39	1·04	1·19	2·45	2·63	19·00
Dewetsdorp	29 35	26 40	14–15	3·48	3·61	3·38	1·87	1·04	0·47	0·37	0·61	1·02	1·55	2·73	2·67	22·80
Doornplaats	29 04	25 31	10	2·11	2·78	3·00	1·18	0·90	0·27	0·37	0·25	0·61	1·21	1·70	1·98	16·36
Edenburg	29 44	25 56	9–10	2·21	2·68	2·77	0·85	0·76	0·12	0·37	0·52	0·32	0·87	1·81	1·79	15·07
Excelsior	30 01	25 57	14–15	2·35	2·97	3·10	1·42	0·94	0·30	0·40	0·41	0·77	0·94	1·91	1·95	17·46
Fauresmith	29 45	25 19	18–21	1·76	2·51	2·60	1·24	0·67	0·29	0·47	0·42	0·60	0·89	1·46	1·70	14·61
Ficksburg	28 52	27 52	13–14	5·84	4·86	4·00	1·71	0·98	0·36	0·34	0·56	1·43	2·28	3·84	4·10	30·30
Frankfort	27 17	28 30	13–15	4·85	4·02	2·64	1·60	0·79	0·16	0·41	0·56	0·60	3·21	4·31	4·49	27·64
Grootkuil	28 14	26 30	9	2·65	3·08	2·80	1·08	0·52	0·25	0·28	0·38	0·56	1·41	2·31	2·21	17·53
Harrismith	28 16	29 10	15–16	4·86	4·52	3·37	1·28	0·72	0·25	0·35	0·76	1·15	3·27	4·50	4·49	29·52
Heilbron	27 17	27 58	8–10	5·57	4·08	3·18	1·23	0·87	0·28	0·31	0·51	0·95	2·69	4·98	4·78	29·43
Hoopstad	27 50	25 54	22–26	3·89	3·71	3·04	1·49	0·50	0·21	0·26	0·41	0·73	1·37	2·75	2·47	20·83
Jacobsdal	29 09	24 48	27–31	2·76	2·64	3·05	1·51	0·94	0·43	0·34	0·37	0·59	0·98	1·62	1·73	16·96
Koffiefontein	29 24	25 00	15–16	2·04	2·56	3·14	1·19	0·72	0·24	0·35	0·34	0·49	0·84	1·59	1·22	14·72
Kopjes	27 13	27 34	9–10	3·84	3·02	2·78	1·32	0·56	0·22	0·42	0·60	0·77	2·63	3·92	4·27	24·35
Kroonbank	27 37	27 48	15–16	4·20	3·62	3·26	1·45	0·90	0·22	0·28	0·49	1·00	2·83	3·52	4·12	25·89
Kroonstad	27 40	27 14	40–41	4·17	3·59	3·55	1·93	1·00	0·28	0·28	0·44	0·83	1·97	3·14	3·14	24·32
Ladybrand	29 12	27 27	25	4·64	3·85	3·40	1·71	0·97	0·43	0·44	0·66	1·53	2·47	3·68	3·51	27·29
Lincolnshire	27 53	29 38	13–14	7·09	5·43	4·64	1·50	0·67	0·15	0·42	1·05	1·35	3·46	4·74	5·45	35·95
Lindley	27 53	27 55	20–22	4·24	3·62	2·83	1·54	0·94	0·26	0·29	0·49	0·96	2·28	3·18	3·76	24·39
Mill Barton	27 58	28 52	11	4·60	3·86	3·36	1·07	0·63	0·28	0·23	0·71	1·22	3·17	4·03	3·61	26·77
Overdene	28 28	28 02	12–13	5·20	5·69	4·47	1·67	0·98	0·42	0·37	0·61	1·54	2·98	4·41	4·00	32·34
Paardekraal	28 41	27 15	12	3·64	3·21	3·10	1·31	0·73	0·28	0·35	0·43	1·12	2·04	3·12	3·02	22·35
Pakpoort	29 30	25 52	10	2·12	3·06	2·81	1·18	0·58	0·23	0·33	0·33	0·51	1·15	1·80	1·51	15·61
Philippolis	30 16	25 16	34–37	2·74	3·09	3·07	1·71	1·11	0·57	0·44	0·50	0·75	0·99	1·44	1·66	18·07
Reitz	27 48	28 26	16–17	4·99	3·49	3·07	1·63	0·81	0·25	0·31	0·56	0·96	3·13	3·95	4·69	27·84

AVERAGE MONTHLY RAINFALL AT VARIOUS STATIONS IN UNION—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan.	Feb.	Mar.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	° ′	° ′														
ORANGE FREE STATE—*continued.*																
Riversford	29 27	26 07	14	2·77	2·88	2·40	1·31	0·71	0·32	0·24	0·35	0·77	0·99	2·16	1·86	16·76
Roodepoort	27 50	25 23	14	2·54	3·24	2·98	1·06	0·52	0·18	0·26	0·33	0·54	1·17	1·98	2·04	16·64
Rouxville	30 25	26 50	14–15	3·67	3·78	3·86	1·60	1·11	0·55	0·53	0·52	0·92	1·50	2·58	2·36	22·98
Senekal	28 19	27 37	15–16	4·53	3·61	3·45	1·42	0·81	0·28	0·24	0·46	1·14	2·02	3·68	3·51	25·15
Smithfield	30 13	26 32	29–33	3·29	3·39	2·92	1·81	1·01	0·47	0·46	0·65	0·73	1·14	1·78	2·48	20·13
Thaba 'Nchu	29 13	26 51	18–23	4·10	3·93	3·44	1·71	0·83	0·41	0·45	0·45	1·08	1·93	2·50	2·68	23·51
Vrede	27 26	29 10	15–16	4·64	3·62	3·05	1·19	0·64	0·09	0·17	0·59	0·76	3·53	4·98	4·77	28·03
Woudzicht	27 34	28 52	11–12	5·91	4·11	3·57	1·30	0·89	0·23	0·30	0·83	1·01	3·84	5·44	5·17	32·60
Wepener	29 44	27 02	17–19	5·01	3·57	3·84	1·58	1·02	0·63	0·50	0·71	0·80	1·77	2·83	3·89	26·15
Winburg	28 31	27 01	16–20	3·50	3·78	3·09	1·32	0·61	0·23	0·25	0·47	0·82	1·87	2·95	2·64	21·53
Zastron	30 18	27 05	13–15	4·30	4·45	3·95	1·86	1·25	0·63	0·48	0·55	1·29	1·75	2·92	3·52	26·95
NATAL.																
Dundee	28 11	30 18	22–24	5·84	5·08	3·84	1·89	0·76	0·22	0·22	0·84	1·31	3·13	4·45	5·30	32·87
Durban	29 52	31 00	49–50	4·36	4·69	5·12	3·58	1·86	1·18	1·21	1·59	3·12	4·87	5·01	4·92	41·51
Empangeni	28 46	31 55	13–15	5·58	4·58	4·91	3·35	2·70	1·20	1·93	1·66	2·80	5·48	5·47	4·79	44·45
Eshowe	28 53	31 27	19	9·56	7·40	6·18	3·00	1·82	0·60	1·19	2·03	3·20	6·95	7·50	8·27	57·70
Greytown	29 04	30 36	26	6·25	5·61	4·99	1·95	1·12	0·30	0·52	1·22	1·77	3·81	5·51	6·00	39·05
Hlabisa	28 08	31 52	19–21	7·25	5·72	4·61	3·01	1·55	0·68	0·91	1·20	2·28	5·16	5·38	5·99	43·74
Howick	29 27	30 14	25	5·24	5·49	4·26	2·13	0·74	0·45	0·32	0·92	1·68	3·29	4·27	4·55	33·34
Ingwavuma	27 08	32 02	10–12	5·82	5·45	3·67	1·78	1·19	0·23	0·62	1·08	1·41	3·34	4·86	5·36	34·81
Krantzkop	28 59	30 52	10–12	6·14	4·67	3·94	1·50	1·06	0·36	0·86	1·18	1·72	3·81	5·10	5·57	35·91
Ladysmith	28 33	29 47	43	4·65	5·23	4·09	1·45	0·60	0·20	0·20	0·92	0·95	2·75	2·85	4·58	28·47
Melmoth	28 35	31 23	21–22	4·56	4·31	3·49	1·92	1·05	0·42	0·61	1·00	1·41	3·34	4·51	4·99	31·61
Mid-Illovo	30 01	30 35	15–17	5·19	5·81	4·99	2·77	1·46	0·93	0·94	1·38	2·89	4·88	4·96	5·97	41·99
Nongoma	27 53	31 36	19	5·36	4·83	3·94	2·04	1·14	0·40	0·46	0·94	1·70	3·51	5·06	5·65	35·06
New Hanover	29 22	30 30	25	5·98	5·77	4·74	2·31	1·31	0·55	0·50	1·17	1·94	3·67	4·96	5·41	38·31
Newcastle	27 45	29 56	21	6·68	6·00	5·03	1·66	0·81	0·15	0·24	0·84	1·27	3·41	5·03	6·68	37·80
Nkandhla	28 38	31 05	12	3·74	4·67	3·58	1·92	0·56	0·52	0·77	0·87	1·34	3·38	5·75	4·54	31·64
Paulpietersburg	27 26	30 52	12–14	5·56	5·59	4·08	2·01	0·79	0·27	0·43	1·00	1·08	3·22	6·37	6·18	36·58
Pietermaritzburg	29 35	30 22	26	5·84	5·32	5·11	2·16	1·21	0·33	0·14	0·95	1·84	3·20	4·25	5·62	35·97
Richmond	29 51	30 17	25	6·34	6·54	5·49	3·07	1·44	0·54	0·53	1·45	2·59	4·46	5·42	6·75	44·62
Stanger	29 19	31 17	27–28	5·14	4·22	5·03	2·75	2·04	0·92	0·69	1·19	3·42	5·20	5·46	6·25	42·31
Ubombo	27 32	32 04	16	5·91	4·85	2·88	1·85	1·31	0·32	0·33	0·98	1·68	4·75	5·04	5·93	35·83
Utrecht	27 40	30 20	12–14	4·86	4·58	3·42	1·20	0·58	0·14	0·34	0·74	1·02	3·71	4·88	5·64	31·11
Vryheid	27 51	30 43	14–15	6·43	4·48	3·65	1·79	0·62	0·22	0·29	0·93	1·46	3·71	4·93	6·49	35·00
Weenen	28 51	30 05	23–25	5·27	4·23	2·91	1·52	0·54	0·20	0·18	0·78	1·10	2·38	3·88	3·89	26·88

12. **Intensity of Rainfall.**—Seeing that the greater part of the Union of South Africa receives the bulk of its rainfall during the summer months (October to March) when thunderstorms are most prevalent, it is to be expected that the intensity of the daily rainfall will be greater than in countries where precipitation is distributed more or less uniformly over the whole twelve months. That this is the case is well shown in the following table which indicates the mean percentage of the total annual rainfall over the central Witwatersrand, contributed by different daily amounts compared with similar data for Greenwich :—

COMPARISON OF INTENSITY OF RAINFALL OVER THE CENTRAL WITWATERSRAND, TRANSVAAL, AND AT GREENWICH, ENGLAND.

Amount per Day.	Percentage of Annual Rainfall.	
	Central Witwatersrand, Transvaal.	Greenwich, England.
Inches.		
0·01–0·10	6·64	16·18
0·11–0·25	13·09	27·97
0·26–0·50	23·57	30·78
0·51–1·00	33·52	20·03
1·01 and over	23·18	5·03

From the above table it will be seen that only 43 per cent. of the annual rainfall over the Witwatersrand occurs in showers of half an inch or less per day as compared with 75 per cent. at Greenwich. Quantities of 2 to 4 inches in one day are fairly common, having been noted, for example, ten times in eleven years at Johannesburg, whilst quantities exceeding 4 inches have been reported twice in the same period, the maximum in one day there having been 6·12 inches. Daily amounts exceeding 2 inches have occurred over the greater part of South Africa, with the exception, apparently, of the west coast. At many stations along the south and south-east coasts and for some distance inland, quantities of 5 inches and over have been recorded in one day, whilst amounts of 10 to 18 inches are not unknown between Durban and Swellendam. Further, quantities exceeding 20 inches have been registered as the result of two to three days' rainfall in the south and south-east, even in semi-arid areas, the fall in one day occasionally exceeding the average annual rainfall.* Very heavy rains in short periods, particularly during thunderstorms, occur all over the summer rainfall area. Rates exceeding 10 inches per hour have been reached for a few minutes, but quantities of about 4 inches have been actually recorded as a result of one hour's downpour. Such intense falls naturally result in floods which frequently cause considerable damage, particularly in low-lying lands and towns. Whilst floods over the summer rainfall area are mostly due to such heavy thunderstorm rains, they are also occasionally due to lighter prolonged precipitation over wide areas, as in the case of the Gamtoos River flood of May, 1916.

This intensity of the rainfall has an important bearing on agriculture as the amount of water that sinks into the soil is considerably decreased in comparison with that from lighter rains. On the other hand, the increased run-off from heavy showers enables water to be stored in dams, etc., for irrigation purposes, so that the water can be used for winter crops.

13. **Hail.**—This occurs principally in three different forms :—

(1) *Soft hail*, consisting of small, rounded pellets about the size of peas, opaque and white like compacted snow ;

(2) *icy pellets*, larger and more compact and transparent, like frozen raindrops ; and

(3) *true hail*, consisting of pieces of ice of irregular form, but mostly pear or mushroom shaped, with a central opaque nucleus, surrounded by a series of more or less concentric hard and soft, alternately clear and opaque layers. The outer layer of these hailstones frequently bears a series of tooth-shaped projections. These vary in size, frequently being described in the size of marbles, but occasionally the size of hens' eggs or even of oranges.

The first type of hail occurs mostly in showers in spring and sometimes in winter, when it is occasionally followed by snow. The second is mainly a winter phenomenon. True hail, on the other hand, is usually associated with thunderstorms and occurs mostly during the warmest time of the year. Although usually regarded as a summer phenomenon, such storms may occur during the winter months, as at Fauresmith, Orange Free State, on the 19th June, 1900.

* In previous issues (Nos. 1 to 5) are given diagrams for the Transvaal showing the probable maximum amounts of rainfall during various intervals up to two hours.

A fourth form of hail which is very exceptional, consists of irregularly shaped pieces of ice, like fragments of larger pieces which have been broken by collision with one another; these are occasionally long and narrow. This form has been noted in Pretoria, associated with true hail.

The average number of days throughout the year on which hailstorms occur over the Transvaal is 106, but the actual number has varied between 80 and 133; whilst over the Cape Province, where the actual number of days has varied between 73 and 131, the average number of days is 105. The following table shows the average number of days in each month on which hail fell at one or more stations in the Cape and Transvaal Provinces:—

AVERAGE NUMBER OF HAIL-DAYS IN EACH MONTH OVER THE TRANSVAAL AND CAPE PROVINCES.

Province.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Cape.....	11·9	13·8	11·6	7·0	7·5	4·5	4·9	4·0	7·4	9·5	10·5	12·4	105·0
Transvaal.....	13·5	8·4	10·4	6·3	3·9	0·7	1·8	1·8	6·6	15·5	20·1	16·9	105·9

The number of hail-days is considerably greater during the winter months in the Cape Province than in the Transvaal, a condition which seems to be closely related to the greater amount of rainfall during winter over the Cape Province, than over the Transvaal. Hailstorms frequently cause considerable damage to fruit, crops, windowpanes, etc., even at times killing numbers of small stock; this is particularly the case in the Transvaal where these storms attain their maximum at the beginning of the growing season. Fortunately, they usually pursue a narrow path of limited extent so that occasionally only the crops in one portion of a farm are destroyed, the rest being left untouched.

14. **Hailstorm at Pretoria and Vicinity, 25th December, 1923.***—Probably no country in the world is more subject to hailstorms than South Africa, whose geographical position and topography—an extensive plateau some 4,000 ft. above sea-level, offer ideal conditions for their development. These storms are sometimes very severe, and it is proposed to give some description of one which visited Pretoria, on Christmas Day, 1923, and caused damage to property to the extent of £80,000.

On Christmas morning, the sky was obscured by clouds of the strato-cumulus type, and about noon a slight shower of rain fell. Subsequently there was a partial clearance, but at 6.25 p.m. the sound was heard of hailstones falling on galvanized-iron roofing. The sky to the south then appeared a mass of leaden cloud, except for a low layer in the fore-front which bore a reddish, coppery appearance. For a short time the fall of isolated stones continued at intervals of about three seconds followed by intense rainfall and again hail. The hail might have been mistaken for a shower of snowballs but for the deafening noise of impact on roofs and ground, the stripping of foliage and large branches from trees, the snapping of telephone wires as though they were threads, the smashing of windows and the perforation of tiled roofs like so much paper. This continued until 6.35 p.m., when the hail gave place to a heavy rainfall which completed the havoc. The water, pouring through the roofs, either found its way through the ceilings, or, by accumulating, caused their collapse. All information obtained from reliable sources as to the size of the hailstones agrees fairly well with official observations. One which was seen to fall and was under observation until it could be recovered with safety, measured 4 by $3\frac{1}{2}$ by 2 inches, and weighed 5·1 oz., eight others together weighed 1 lb. 15 oz., or an average of about 4 oz. each. All these stones were collected from a space measuring 30 by 40 ft. and the weight was obtained by melting and measuring in a c.cm. measure glass. In structure, the stones showed considerable divergence. The largest was composed of small stones about the size of small marbles frozen together. One, almost a perfect sphere, with a diameter of about $2\frac{1}{2}$ inches, had the appearance of tightly packed snow throughout, while another, also spherical, and of about the same dimensions, had an opaque nucleus and three concentric opaque layers separated by clear layers. The outside was clear ice about $\frac{1}{8}$ inch in thickness. Another with a fairly flat stone as centre had a circle of large stones around it, their shapes being such as to give the impression that they were originally spherical, but had been distorted until they fitted together round the centre disc to form one complete mass.

At 7.17 p.m. the centre of the storm was to the north, and the cloud in its rear had a movement from west to east. At the surface was a rising current in which condensation was taking place at a few hundred feet, and this was travelling rapidly from north-east to south-west towards another storm in the south. The appearance was that of smoke passing out of one storm towards another. With the advance of this second storm, rain again began at 7.30 p.m., and at 7.49 p.m. lightning was overhead. With the first storm

* Contributed by G. W. Cox, Scientific Assistant, Meteorological Office.

there was little lightning, with the second there was no hail but very intense lightning. At 8.20 p.m. when the rain had ceased to a drizzle and the centre of the second storm was some distance to the north, 360 flashes of lightning were counted in three minutes. Rain ceased at 8.34 p.m. and at that time lightning was again visible on the southern horizon. Fortunately this third storm passed to the east at about 11.30 p.m. when the autographic records in the city showed a rise in pressure, fall in temperature, and a change in direction and increase in the velocity of the wind. This ended a memorable day and looking back it is very hard to understand why no human life was lost. The horn of a cow struck by a hailstone was broken off at the root, and 22-gauge corrugated iron sheets were pierced by the impact.

Of the two storms which actually passed over Pretoria, the first had its origin at 4.30 p.m. at Bedford Farm, four miles to the east-north-east of the Union Observatory, Johannesburg, where its presence was indicated by a slight fall in temperature and change in wind direction from north to north-east by north accompanied by a decrease in velocity from fifteen to eight miles per hour. At Bedford Farm the total precipitation was 1.28 inches with only a little hail. First proceeding for seven miles in a north-easterly direction, the storm turned northwards to Kempton Park and then continued to move towards the north throughout its course. The hail was not remarkable at Kempton Park, and at Irene, after the storm had traversed twenty-three miles, the stones were only the size of peas and marbles. At Pretoria, thirty-one miles from the point of its origin, the stones had assumed the dimensions already described, but the maximum intensity of the storm seems to have occurred some distance to the north. Only 800 of the 15,000 tiles on the roof of the school at Wonderboom escaped damage; and at "Ons Plaas," six miles to the north-north-east of the city, two head of cattle and many fowls were killed, pigs were drowned, crops completely destroyed and mature trees stripped of all foliage and bared of their bark. The second storm passed the Union Observatory at 5.51 p.m. and was accompanied by a slight rise in pressure, veering of the wind from north-north-west to east-south-east, and decrease in velocity from sixteen to eight miles per hour. This storm seems to have been fairly innocuous over a large part of its track, but at Irene hailstones the size of a golf ball fell, destroying fruit and crops and smashing windows. At Oliphantsfontein stones fell the size of a goose-egg, destroying all fruit and crops, but it cannot be decided to which storm these can be attributed.

A few miles beyond Pretoria the separate existence of the two storms cannot be determined, and it is necessary to treat them as one. When the farms Honingnestkrantz and Roodewal were reached, forty-four miles from Bedford Farm, little hail fell, but the strength of the wind had increased, and the same conditions prevailed at Pienaar's River, where the wind caused considerable damage to property. Beyond this point the storm decreased rapidly in intensity, and died out after having travelled ninety-four miles. The hail belt was sixty-nine miles in length, with a breadth of fifteen miles in the vicinity of Pretoria; the rate of travel of the first storm was seventeen miles per hour, and of the second nineteen.

The passage of a third storm is shown by Johannesburg records and this was probably the same which was seen to the east of Pretoria at 11.30 p.m. There also seems to have been a succession of storms of great severity over the path this one pursued, and at one place all crops were destroyed, trees uprooted, and iron roofing pierced by hailstones. Further to the east, other storms can be traced, and the records showing the rainfall during the day over the thunderstorm area conveys a correct impression of what occurred over the eastern half of the Transvaal, if it is borne in mind that the storms moved from south to north, and that more than one storm traversed each track.

15. **Snow.**—Falls of snow are comparatively infrequent and usually confined to the mountainous districts. Snow is rarely met with on the coastal flats, as may be appreciated from the statement that it was seen even on Table Mountain (Cape Town) on only seven occasions in forty-four years; whilst falls were recorded on the high veld (Transvaal) in only eleven out of fifty-seven years. This form of precipitation, however, is much more frequent on the mountains in the east of the Cape Province, where it may be seen at least three or four times each winter.

16. **Winds and Wind Velocities.**—This subject was dealt with in Official Year Books Nos. 6 and 7, and illustrated fairly extensively by means of tables, graphs, and diagrams containing data collected in respect of six of the principal meteorological stations in the Union. Descriptive accounts of the vagaries of and destruction caused by storms of high wind velocity were given, and reference should be made to these previous issues for information on the subject.

17. **Hot Winds.**—All along the coastal districts, and inland near the foot of the plateau, hot, dry winds are experienced, considerably affecting the temperature curve. These "Berg Winds," as they are termed along the south coast, cause at times a practical inversion of the seasons, the maximum temperatures recorded during the winter months being frequently 15 to 25 degrees higher than in summer, whilst the mean temperature

is also considerably raised. They may blow for only a few hours or may continue for two or three days in succession producing a feeling of great oppression ; when the wind changes its direction, it brings cool, cloudy weather and occasionally rain with a welcome feeling of relief. As these winds owe the greater part of their heat to being warmed by compression in passing from the elevated table-land in the interior to the low coastal lands, the directions from which they blow, being more or less at right angles to the coast-line, depend on the direction in which the escarpment and mountain ranges extend. Thus, they are easterly along the west coast from Walvis Bay southwards, northerly to north-westerly (very seldom north-easterly) along the south coast and inland to Stutterheim ; and north-westerly at Durban. They also appear to blow with greatest frequency in different months over different areas. Thus, they are most frequent in the winter months along the west and south coasts at least as far as Blaauwkrantz, forty miles east of Knysna ; at East London there are two maxima, one in the late spring and the other in early autumn, whilst at Durban they are confined mainly to the spring and early summer.

The following tabular statement of the average number of these hot winds occurring in each month at Blaauwkrantz (Division Knysna), in the south coast division of the Cape Province during the ten years 1891–1900, and at Pietermaritzburg, in Natal, during the eight years 1858–1865, will serve to bring out the essential differences in their seasonal distribution at these two places :—

Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Year.
Blaauwkrantz.....	0·1	0·2	0·4	1·3	2·9	4·1	5·2	3·9	1·4	0·2	0·2	0·0	19·9
Pietermaritzburg*....	1·5	1·2	0·7	0·9	1·2	0·9	2·4	3·2	5·1	4·2	3·0	1·7	26·0

* The Pietermaritzburg data have been extracted from Dr. Mann's paper on " Atmospheric Pressure in Natal," Proc. Brit. Met. Soc., Vol. III, p. 345.

The above table shows that at Blaauwkrantz these " Berg winds " are most frequent between May and August, with a maximum in July, whereas at Pietermaritzburg the period of greatest frequency is from August to November, with the maximum in September, two months later than on the south coast.

During a hot north-north-west to north wind on the 22nd January, 1923, a maximum temperature of 117·5 was recorded at Uitenhage and 118·0 at Dunbrody, both in the Uitenhage Division in the south of the Cape ; as a result of this intense heat, mealie and other crops were destroyed, while some cattle, ostriches, a large number of fowls, small birds, and bees died.

18. **Duststorms.**—One of the most disagreeable features in the South African climate is undoubtedly the duststorms which occur all over the country. They are most frequent during the second half of the year, usually starting in August when the high pressure over the interior is beginning to break up ; they are also frequently associated with the forefront of advancing thunderstorms so common over the summer rainfall area. The fine dust, raised by a strong squally wind, rises as an enormous, thick cloud, almost blotting out the landscape, and penetrating everywhere. Fortunately, these duststorms seldom last for any length of time and are usually followed by rain.

19. **Evaporation.**—All over the Union evaporation from free water surfaces is found to be largely in excess of the average annual rainfall. A table showing the monthly recorded results at three widely separated centres was published in issues Nos. 6 and 7 of this Year Book. The annual figures were as follows :—

	Johannesburg. (Union Observatory.)	Cape Town. (Molteno Reservoir.)	Dunbrody. (Near Port Elizabeth.)
	Inches.	Inches.	Inches.
Evaporation.....	74·67	78·57	72·19
Rainfall.....	30·73	33·25	14·88

20. **Sunshine.**—The average number of hours of bright sunshine experienced in each month at Cape Town, Kimberley, and Johannesburg, as compared with similar data for other parts of the world, are given below.

MEAN DAILY HOURS OF SUNSHINE.

Month.	Cape Town (Royal Observatory).	Kimberley.	Johannesburg (Union Observatory).	London.	Bucharest.	Calcutta.	Baltimore.	New York.	Cordoba.
	Hours.	Hours.	Hours.	Hours.	Hours.	Hours.	Hours.	Hours.	Hours.
January.....	9·71	9·90	7·8	1·4	2·5	8·9	4·9	5·1	9·1
February.....	9·78	9·14	7·5	1·8	3·4	9·0	6·4	6·2	8·5
March.....	8·36	8·83	7·2	3·4	4·5	9·5	6·8	6·5	7·6
April.....	6·50	8·72	8·7	4·6	6·1	9·9	7·9	7·7	7·1
May.....	6·10	8·64	8·8	6·5	8·0	9·4	7·7	8·1	6·6
June.....	4·81	8·64	9·0	6·2	8·7	5·1	9·2	9·0	5·3
July.....	4·90	8·90	9·2	6·3	10·4	4·1	9·2	8·4	5·6
August.....	5·93	9·23	9·9	5·9	10·1	3·6	8·4	8·3	7·1
September.....	6·76	9·78	9·3	4·3	7·7	5·3	8·4	7·5	7·6
October.....	7·92	10·08	9·0	3·1	5·3	8·3	6·7	5·8	8·0
November.....	9·16	10·76	8·9	1·7	3·4	8·5	5·0	5·0	8·9
December.....	10·17	10·26	8·6	1·1	2·1	8·1	4·9	4·9	8·8
Year.....	7·51	9·41	8·7	3·8	6·0	7·5	7·1	6·9	7·5
Percentage of Total Possible Hours.....	66	78	73	29	49	62	58	56	63

The largest proportion of possible sunshine at Cape Town occurs during the summer months, whilst at Kimberley the reverse is the case, the largest proportion occurring during the winter months. It is, therefore, possible to live in South Africa in practically continuous sunshine, e.g. by spending the summer months in the Cape Peninsula and the winter months on the High Veld, where the skies are then practically cloudless and the climate ideal, although the night temperatures frequently fall below freezing-point.

21. **Upper Air Research in South Africa.**—An interesting note contributed by Mr. G. W. Cox, Scientific Assistant, Union Meteorological Office, on the results of researches into the direction and velocity of upper air currents, made by means of pilot balloons, appeared in Official Year Book No. 7, but has had to be omitted from the present issue out of considerations of space.

§ 13. Observatories.

A. THE UNION OBSERVATORY.

[Longitude, 1h. 52m. 18·0s. E.; Latitude, 26° 10′ 55″·3 S.; Altitude, 1,806 metres.]

UNION ASTRONOMER: R. T. A. INNES.

1. **Institution and Development.**—By Government Notice No. 612 (1/5/12) notification was given that the Transvaal Observatory would be known as the Union Observatory under the charge of the Union Astronomer. The Observatory was instituted in 1903, when, as a result of a petition presented by the South African Association for the Advancement of Science, the Governor of the Transvaal decided to form a Meteorological Department for that Colony. The Director of Meteorology was appointed in April, 1903, and the headquarters of the Department, the Transvaal Observatory near Johannesburg, were officially opened on the 5th January, 1905, by Lord Milner, in the presence of Sir David Gill, then H.M. Astronomer at the Cape, the Mayor of Johannesburg, and representatives of the scientific and technical societies of the Transvaal.

From 1903 until 1910, the Transvaal Meteorological Department published annual volumes (7) of meteorological results compiled from data collected by voluntary observers in all parts of the Province. In 1911 the Government decided to consolidate the meteorological services of the Union in the Irrigation Department (Meteorological Branch), and at the same time desired that the Transvaal Observatory should concentrate and develop its operations on the astronomical side, the title of the Transvaal Observatory being changed to that of the Union Observatory, the Transvaal Meteorological Director becoming the Union Astronomer. The Union Observatory still maintains its own meteorological observations, and as such it is still the only official meteorological station of the first order* in the Union.

The following tables containing data for the years 1923–24 and 1924–25 are a continuation of a summary of the records of rainfall and temperature observations made at the Observatory without a break since 1904. The figures for prior years will be found in previous issues of this *Year Book*.

* FIRST ORDER stations are those making continuous records of the chief meteorological elements.

(i) RECORDS OF RAINFALL—UNION OBSERVATORY.

Month.	1923–24.		1924–25.		Monthly Means.*	
	Inches.	Days.	Inches.	Days.	Inches.	Days.
July	1·04	4	0·00	0	0·32	2
August	0·02	1	0·16	2	0·54	2
September	0·51	3	1·38	7	0·89	7
October	0·84	2	2·28	11	2·65	9
November	4·46	13	4·09	14	4·91	13
December	2·33	10	5·75	17	4·84	15
January	3·88	13	5·08	17	5·37	15
February	2·91	13	4·41	8	4·68	12
March	6·25	8	6·16	22	4·16	12
April	1·08	6	4·20	15	1·36	7
May	1·16	4	1·50	6	0·77	4
June	0·03	1	0·08	1	0·10	1
Season	24·51	78	35·09	120	30·59	99†

* Monthly means for the period 1904–05 to 1924–25.
† Mean of twenty-one seasons from 1904–05.

(ii) RECORDS OF TEMPERATURE OBSERVATIONS—UNION OBSERVATORY.

Month.	1923–24.			1924–25.			Monthly Means.*		
	Average Maximum (Monthly).	Average Minimum (Monthly).	Average Mean (Monthly).	Average Maximum (Monthly).	Average Minimum (Monthly).	Average Mean (Monthly).	Average Maximum (Monthly).	Average Minimum (Monthly).	Average Mean (Monthly).
	°	°	°	°	°	°	°	°	°
July	58·6	40·0	49·3	60·5	39·8	50·2	60·1	40·9	50·5
August	68·3	46·7	57·5	63·3	42·0	52·7	64·8	43·3	54·0
September	74·7	50·1	62·4	69·4	47·7	58·5	70·8	48·1	59·5
October	79·5	55·3	67·4	72·5	51·3	61·9	73·9	51·6	62·8
November	78·5	56·7	67·6	72·0	53·1	62·6	73·9	53·2	63·6
December	77·1	54·7	65·9	72·3	54·0	63·1	75·4	54·8	65·1
January	81·0	57·6	69·3	75·3	55·2	65·3	76·6	56·3	66·4
February	73·1	52·1	62·6	76·5	56·6	66·6	75·1	55·7	65·4
March	69·2	55·3	62·3	71·8	54·6	63·2	72·5	54·1	63·2
April	69·5	49·6	59·6	65·8	51·2	58·5	69·4	50·2	59·8
May	63·5	45·1	54·3	61·0	43·4	52·2	63·5	45·0	54·3
June	59·9	39·9	49·9	59·5	39·0	49·3	60·0	41·1	50·6
Season	71·1	50·3	60·7	68·3	49·0	58·7	69·7†	49·5†	59·6†

* Monthly means for the period 1904–05 to 1924–25.
† Mean of twenty-one seasons from 1904–05.

(iii) EXTREME TEMPERATURES RECORDED AT THE UNION OBSERVATORY.

Year.	Highest Recorded.	Lowest Recorded.
	°	°
1923–24	89·5 on 18th Jan., 1924	28·2 on 25th June, 1923
1924–25	84·8 on 20th Jan., 1925	26·0 on 1st Sept., 1924
Period 1904–05 to 1924–25	90·1 on 5th Jan., 1920	22·8 on 27th June, 1921

NOTE.—The thermometers are exposed in a Stevenson screen. The 31st January and the 1st March are added to February in order to make the division of the year more even. January, February, and March thus have thirty days each except in Leap Year, when February has thirty-one days.

2. **Instruments.**—In 1910, Weichert seismographs were installed, by which all great earthquakes in any part of the world, as well as the smaller local tremors due to the effects of mining, are automatically recorded.

In 1907 the Witwatersrand Council of Education, Sir David Gill and others provided the Observatory with a 9-inch refracting telescope made by Sir Howard Grubb, of Dublin. This instrument was afterwards taken over by the Union Government. In 1909 a

deputation from the South African Association for the Advancement of Science waited on the Transvaal Minister of Lands (The Hon. J. F. B. Rissik) to ask the Government through him to provide the funds for a powerful refracting telescope. The request was acceded to and the Transvaal Parliament having voted the required expenditure, a 26-inch refracting telescope was ordered from Sir Howard Grubb in 1909. Through unexpected difficulties in casting the optical glass for the objective, the telescope was unfinished when the War began and its completion had to await the termination of hostilities. Further difficulties arose through the greatly increased costs of material and work, and the manufacture of a suitable flint disk for the object-glass also gave rise to delays. The telescope was received from the manufacturer towards the end of 1924 and was erected and brought into use in 1925. The clear aperture of the object-glass is 26½ inches.

A 10-inch astrographic camera and a twin-telescope (object-glasses, 6 and 7 inch) with a 6-inch prism were presented by the late J. Franklin-Adams, of London. The Observatory possesses the collection of clocks, chronometers, and other miscellaneous instruments usually found in such institutions.

A wireless set by which time-signals from all parts of the world can be heard is installed and time-signals from Bordeaux and other stations are regularly received.

3. **General Operations.**—Official Time in South Africa (Standard Time of the 30th meridian east of Greenwich) is supplied to the Cape Province and the Orange Free State by the Royal Observatory, near Cape Town, and to the Transvaal and Natal by the Union Observatory.

With the Franklin-Adams Star-Camera, photographic plates covering the whole sky have been taken, the plates covering that part of the sky north of the equator having been taken in England before the telescope was presented to the Union Observatory. All these plates were sent to England and copies of them are made and sold by the Royal Astronomical Society (London).

The instrument is constantly at work, new plates being taken on all favourable occasions. On these plates many celestial objects are recorded, including variable stars, comets, minor planets, the fainter satellites of Jupiter and stars with large proper motion. Amongst the new minor planets found on these plates are Transvaalia (715), Mancunia (758), and Franklina (982); others are so far unnamed. A series of charts from these plates is being prepared on a scale of 36 mm. = 1°, showing all stars to about the 14th or 15th magnitude between Dec. — 19° and the South Pole. These charts as issued are distributed to the leading observatories of the world.

With the 9-inch refractor nearly 700 new double stars have been found and measured. Observations of the chief satellites of Jupiter have been made regularly since 1908. With the twin-telescope the spectra of the brighter stars have been photographed with dyed plates so as to obtain more of the red end of the spectrum than can be got with ordinary plates. The Union Observatory possesses in its blink-microscope one of the most potent of the more modern instruments of astronomical research. With this instrument it is possible to compare two celestial photographs of the same region of the sky with speed and precision, no matter how crowded with stars the plates may be. With its use plates taken at different times are rapidly searched for planets and variable stars, or if the interval between the exposures amounts to years, for stars with proper motion. The Observatories at Greenwich, Paris, Algiers, the Cape, Sydney, and Melbourne have lent many pairs of their astrographic plates with time intervals up to twenty-five years for examination, and numerous examples of large proper motions have been found—mainly in the cases of very faint stars.

The Union Observatory publishes at irregular intervals a circular containing the results of the work it is doing. Up to January, 1925, sixty-two of these circulars had been distributed to other astronomical observatories and institutions.

4. **Visitors.**—Upon written application visitors are admitted to the Observatory on Wednesday evenings and are shown celestial objects through the 9-inch telescope. Senior classes of schools are also shown over the Observatory in the day-time. In 1924 the number of visitors was about 1,500.

B. ROYAL OBSERVATORY, CAPE TOWN.

The Royal Observatory at Cape Town was instituted by an Order-in-Council, dated the 20th October, 1820, as the result of a memorial presented by the Lords Commissioners of the Admiralty. The present buildings erected on grounds covering twenty-seven acres consist of the Meridian Observatory and ten other detached observatories for use with various instruments; together with residences for the staff and other necessary buildings. The following instruments form the present equipment:—

(i) A transit circle.
(ii) A reversible transit circle.
(iii) The McClean telescope (aperture 24 inches).
(iv) Two equatorials (7 inches and 6 inches aperture) each with Repsold micrometer.

(v) A heliometer (7 inches aperture).
(vi) A theodolite (3 feet diameter).
(vii) A zenith telescope (4 inches aperture).
(viii) A photo-heliograph.
(ix) A photographic telescope (13 inches aperture), and other physical, meteorological and geodetic apparatus.

The following are the names of H.M. Astronomers from the date of institution :—

1820—Rev. F. Fallows.
1832—Thos. Henderson.
1833—Sir Thos. Maclear.
1870—E. J. Stone.
1879—Sir David Gill, K.C.B.
1907—S. S. Hough, M.A., F.R.S.
1923—H. Spencer Jones, M.A., B.Sc.

The names of Maclear and Gill are intimately associated with the most important geodetic operations carried out in South Africa.

The observatory is under the control of the Admiralty and, in addition to carrying out its original task of observing southern stars for the purpose of assisting navigation, has developed into one of the chief observatories of the world. The fundamental instrument is the transit circle, which is used for accurate determinations of positions of stars and incidentally for giving South African Standard Time throughout the Cape Province. Special time signals are also sent daily to the various ports, and every evening a wireless time signal is transmitted to ships at sea through the medium of the wireless station at Slangkop. It was at the Cape Observatory that the idea of employing the telescope for the determination of accurate star positions by means of stellar photography first took practical shape in 1882. The development of this resulted in (i) the Cape Photographic Durchmusterung, a photographic catalogue of nearly 400,000 stars and (ii) the international survey of the heavens, in which many of the principal observatories of the world are co-operating. The Cape contribution to the *Carte du Ciel* is a catalogue of about half a million stars. The Victoria telescope is used for the spectroscopic determination of the motions of stars in the line of sight. It has also afforded a further determination of the solar parallax, confirming previous Cape results derived by older methods for this most important astronomical constant. Observation of comets, of occultations of stars by the moon, and heliometer observations of planets are undertaken regularly. Photographs of the sun and meteorological observations are also taken and a continuous record of earthquakes is obtained on the seismograph.

The staff is constituted as follows :—

H.M. Astronomer..... H. Spencer Jones, M.A., B.Sc.
Chief Assistant..... J. K. E. Halm, Ph.D.
Assistants..... J. Lunt, D.Sc.; R. Woodgate.
Secretary..... A. Pilling, B.A.

There are also nine junior assistants and six temporary clerks, three artificers and a carpenter; with three Kroomen, detached from H.M. Naval Yard.

C. The Yale Telescope.

During his visit to Johannesburg, the Prince of Wales, on 23rd June, 1925, formally opened the new southern station of the Yale University Observatory and set in motion the driving mechanism. This station is located on the grounds of the Witwatersrand University, in Milner Park, Johannesburg. Its equipment consists of a photographic refractor of 26 inches aperture and 36 feet focal length, to which is attached a 10-inch visual lens of the same focal length. The total moving parts weigh about twelve tons, the telescope being the largest of its kind south of the equator. It is specially designed for the rapid and accurate photography of celestial objects.

This station was established primarily for the determination of the distances of southern stars, though other investigations bearing on the structure of the universe are contemplated. A knowledge of the distances of the stars is of prime importance in astronomy. While relatively simple in theory, such measurements are inherently difficult owing to the minuteness of the quantities to be measured. At the beginning of the present century, the distances of only a hundred stars were known with any satisfactory degree of precision. At the present time, owing to the application of photography with telescopes of long focus to the problem, the distances or parallaxes of about two thousand stars are known. These stars are mainly in the northern hemisphere where many observatories are actively pursuing this line of research.

The programme of the Yale telescope calls for the taking and measurement of about thirty thousand photographs. These will yield the distances of approximately fifteen hundred stars, most of which are inaccessible to northern observers. The Yale telescope is at present the only instrument south of the tropic of Cancer systematically engaged in the measurement of stellar parallaxes. The completion of the contemplated programme will extend our information regarding the brighter stars to the whole sky. The telescope will also be used for other investigations as the need for them becomes manifest.

D. VARIATION OF THE MAGNETIC COMPASS OVER SOUTH AFRICA.*

The problem of finding the direction of *true* North at any place is one which arises very frequently. The use of the magnetic compass affords a rough method of solving this problem, but a knowledge of what is termed " the variation of the compass " is essential to the solution.

The magnetic poles of the earth do not coincide with the geographical poles. The South Magnetic Pole is roughly in Latitude 72° South, Longitude 155° East. As a result of this the compass needle does not indicate True or Geographical North and South, but points to the Magnetic Poles and indicates Magnetic North and South.

The angle between the direction of True or Geographical North and Magnetic North is termed the " variation of the compass " or the " magnetic declination." This angle is unfortunately not at all constant. It changes from place to place and its value at any place also changes with the time. The secular change of the magnetic declination is due to a progressive shifting of the positions of the magnetic poles. Moreover, the direction in which the compass needle sets is greatly influenced by the presence of magnetic ores in the ground, and in several parts of South Africa magnetic bearings are quite unreliable for this reason.

A magnetic survey of South Africa was carried out by Professor J. C. Beattie† (now Sir Carruthers Beattie) about 1903, and has been partly repeated in later years.‡ From the results of these surveys magnetic maps for South Africa have been published for the epochs 1st July, 1903, and 1st July, 1913. These maps give the values of the chief magnetic elements all over South Africa, but these values only refer to the dates of the maps. The values for other dates may be obtained by making use of the annual rate of change of the elements, as determined by their respective values in 1903 and 1913. Over the greater part of South Africa the westerly declination is decreasing at the rate of about one degree in six years. Since this annual change is itself subject to variation, the predicted values of the magnetic declination for various places in South Africa (given in the attached table) cannot be considered as very trustworthy, but will be sufficiently accurate for rough purposes.

No magnetic observations have been made in South Africa since 1915, and it is now quite time that a further magnetic survey was carried out.

It is interesting to note that the magnetic declination was zero over South Africa in 1620, i.e. the compass needle then pointed to true North. From that time the magnetic needle has deviated increasingly to the West of true North, reaching a maximum deviation of 30° West in 1875. The westerly declination is now decreasing at the rate of about one degree in six years.

TABLE SHOWING THE DEVIATION OF THE COMPASS NEEDLE WEST OF TRUE NORTH FOR PLACES IN SOUTH AFRICA FOR THE DATES 1ST JULY, 1903, 1ST JULY, 1913, AND PREDICTED VALUES FOR JULY, 1926.

	1903.	1913.	1926.
	° ′	° ′	° ′
Bloemfontein	24 47·3	22 57·0	20 34
Cape Town	28 43·9	27 14·0	25 17
Durban	23 40·1	21 32·0	18 46
East London	26 31·4	24 25·0	21 41
Johannesburg	23 4·6	21 19·0	19 2
Mafeking	23 4·8	21 25·5	19 16
Port Elizabeth	27 39·4	25 35·0	22 53
Pretoria	22 16·4	20 32·0	18 16

* Contributed by H. E. Wood, M.Sc., F.R.A.S.
† Report of a Magnetic Survey of South Africa. J. C. Beattie, 1909.
‡ Transactions of the Royal Society of South Africa. Vol. V, Part 6

CHAPTER II.

CONSTITUTION AND GOVERNMENT.

§ 1. Early Governmental and Judicial Administration.

An extensive article, written by Mr. C. Graham Botha, Chief Archivist of the Union, on the Development of the Governmental and Judicial Administration of the Cape of Good Hope under the aegis of the Dutch East India Company, the Batavian Republic, and British régimes, appeared in issue No. 7 of the *Official Year Book*.

§ 2. Constitutional Development.

1. **General.**—In reviewing the constitutional history and development of the Cape of Good Hope, Natal, Transvaal, and Orange Free State, it must be noted that the movements which were consummated in the union of these States in 1910 may be traced back at their furthest to a period when the principles which characterize them lay at the root of the constitutional struggles of Western Europe, where in due course they were elaborated. and at length secured general acceptance. The *Cape of Good Hope*, with a constitutional history extending over a relatively long period, was influenced in its modern developments by the liberal tendencies which in England found expression in the Reform Acts and the Durham colonial system. The constitutional movement in *Natal* followed closely that in the Cape, allowances being made for the difference in age of the two colonies. The *Transvaal* and the *Orange Free State* possessed under the Republican régime constitutions which were to a large extent related to the neighbouring systems, and the form of Government which they acquired after the war of 1899-1902 was of the type already proved in the Cape and Natal.

It was principally in the case of the local government institutions that developments of a distinctive character may be noticed—fostered as they were by the existence of small communities widely separated, and to a large extent free from central control. This circumstance forms a very important factor in the whole history of the South African States and the present Union.

An account of the constitutional development of the four States which now comprise the Union was given in the sixth and earlier issues of this Year Book. The chronology of the movement which ended with the Union constitution adopted in 1910 will be found embodied in Chapter XXVIII.

2. **The Union of South Africa.**—The constitutional basis of the Union of South Africa is contained in the South Africa Act of 1909, a summary of which is given hereunder. The full text of the Act was reproduced in issues 1 to 5 of this Year Book. A schedule of the legislation amending, modifying, or defining certain provisions of the Act is given on page 78.

SYNOPSIS OF THE SOUTH AFRICA ACT, 1909, AND AMENDMENTS.

[Sections marked with an asterisk * are referred to in the table of amending, modifying, or definitive legislation given below.]

PART I—PRELIMINARY (SECTIONS 1 TO 3).

*§ 1. Acknowledgment of Sovereignty and Guidance of Almighty God.

§ 2. The words "The Union" are to be taken to mean the Union of South Africa, and the words "Houses of Parliament," "House of Parliament," or "Parliament" to mean the Parliament of the Union.

§ 3. The provisions referring to the King are to be extended to his successors.

PART II—THE UNION (SECTIONS 4 TO 7).

*§ 4. The Colonies of the Cape of Good Hope, Natal, the Transvaal, and the Orange River Colony are to be united by Royal Proclamation into a legislative union at a date not later than one year after the passing of the Act. The Government and Parliament are to have full power within the limits of the Colonies, but the King is to appoint a Governor-General.

§ 5. The provisions of the Act are to take effect on and after the date appointed.

§ 6. The four Colonies are to become the original Provinces with the same limits as the respective Colonies.

§ 7. All Acts applying to any Colony as being self-governing or with responsible government are to cease to apply to that Colony on its entering the Union.

PART III—EXECUTIVE GOVERNMENT (SECTIONS 8 TO 18).

§ 8. The Executive Government of the Union is vested in the King or his representative.

§§ 9–11. A Governor-General appointed by the King represents His Majesty in the Union, and exercises, subject to this Act, such powers and functions as His Majesty is pleased to assign to him. The salary of the Governor-General is fixed at £10,000, payable out of the Consolidated Revenue Fund of the Union, and is not to be altered during his continuance in office. The provisions of the Act are to apply to any person appointed as deputy to the Governor-General during his temporary absence.

§§ 12–13. An Executive Council to be chosen and summoned by the Governor-General is to advise him in the government of the Union.

*§ 14. Ministers of State, not exceeding eleven in number, are to be appointed to administer such departments of State as are established by the Governor-General-in-Council. These officers are to be members of the Executive Council, and after the first general election of members of the House of Assembly, no Minister is to hold office for more than three months unless he becomes a member of either House of Parliament.

*§ 15. The appointment and removal of all officers of the public service is vested in the Governor-General-in-Council unless delegated to some other authority.

§ 16. All powers and functions vested in the Governor or other authority of a Colony at the date of the establishment of the Union are to be vested in the Governor-General, the Governor-General-in-Council, or in the authority exercising similar powers under the Union.

§ 17. The command-in-chief of the naval and military forces within the Union is vested in the Governor-General as the representative of the King.

§ 18. Save as in section 23 excepted, Pretoria is to be the seat of Government of the Union.

PART IV—PARLIAMENT (SECTIONS 19 TO 23).

§ 19. The legislative power of the Union is vested in the Parliament, consisting of the King, a Senate, and a House of Assembly.

§ 20. Times for holding the sessions of Parliament may be appointed by the Governor-General, who also prorogues Parliament and dissolves the Senate and the House of Assembly. The dissolution of the Senate may not take place within a period of ten years after the establishment of the Union, nor may it affect any senators nominated by the Governor-General-in-Council.

§ 21. Parliament is to be summoned to meet within six months of the establishment of the Union.

§ 22. A period of twelve months may not intervene between the last sitting of Parliament in one session and its first sitting in the next session.

§ 23. Cape Town is to be the seat of the Legislature of the Union.

SENATE (SECTIONS 24 TO 31).

*§ 24. For the ten years after the establishment of the Union eight Senators are to be nominated by the Governor-General-in-Council, one half of their number being selected mainly on the grounds of their thorough acquaintance with the reasonable wants and wishes of the coloured races in South Africa. Each original Province is to elect eight senators. The senators hold their seats for ten years.†

§ 25. Parliament may provide for the constitution of the Senate after the expiration of the ten years, and unless and until such provision has been made, the Senate is to consist of the nominated members together with eight senators for each Province elected in the prescribed manner and holding office for ten years unless the Senate be sooner dissolved.

§ 26. The qualifications of a senator are as follows:—

He must—

(*a*) be not less than thirty years of age;

(*b*) be qualified to be registered as a voter for the election of members of the House of Assembly in one of the provinces;

(*c*) have resided for five years within the limits of the Union as existing at the time when he is elected or nominated;

(*d*) be a British subject of European descent;

(*e*) in the case of an elected senator, be the registered owner of immovable property within the Union of the value of not less than £500 over and above any special mortgages thereon.

§§ 27–28. Provision is made for the election of the President of the Senate.

§ 29. Provision is made for the resignation of senators.

§ 30. The presence of at least twelve senators is necessary to constitute a meeting of the Senate for the exercise of its powers.

§ 31. All questions in the Senate are determined by a majority of votes, the President having the casting vote.

† Amended by Act No. 54 of 1926.

HOUSE OF ASSEMBLY (SECTIONS 32 TO 50).

§§ 32–33. The House of Assembly is composed of members chosen by the voters of the Union in electoral divisions. The numbers elected in the original Provinces at the first election were Cape of Good Hope, 51; Natal, 17; Transvaal, 36; and Orange Free State, 17. The number in any original Province may not be diminished until the total number of members of the House of Assembly reaches 150, or until a period of ten years has elapsed.

*§ 34. Provision is made for the increase, from time to time, of the number of members to be elected in each Province.

§ 35. Parliament may prescribe the qualifications necessary to entitle persons to vote. No voter registered in the Province of the Cape of Good Hope may be disqualified by reason of his race and colour only except by a Bill passed by a joint sitting of both Houses of Parliament.

§ 36. The qualifications of voters for the election of members of the House of Assembly are the same as existed in the several Colonies at the establishment of the Union. No member of His Majesty's regular forces on full pay is entitled to vote.

*§ 37. The laws in force in the Colonies at the establishment of the Union relating to elections apply to the election of members of the House of Assembly. All polls are to be taken on the same day throughout the Union.

§§ 38–40. Provision is made for the setting up of an Electoral Delimitation Commission, and their duties are defined.

§§ 41–43. A similar commission is to be appointed after each quinquennial census.

§ 44. The qualifications of a member of the House of Assembly are as follows :—

He must—

(*a*) be qualified to be registered as a voter for the election of members of the House of Assembly in one of the provinces;

(*b*) have resided for five years within the limits of the Union as existing at the time when he is elected;

(*c*) be a British subject of European descent.

§ 45. No House of Assembly is to continue for a period longer than five years from the first meeting thereof.

§§ 46–47. Provision is made for the election of a Speaker of the House and for a deputy to perform his duties during his absence.

§ 48. Provision is made for the resignation of members.

§ 49. The presence of at least 30 members is necessary to constitute a meeting of the House.

§ 50. All questions are determined by a majority of votes, the Speaker having the casting vote.

BOTH HOUSES OF PARLIAMENT (SECTIONS 51 TO 58).

§ 51. Every senator and every member of the House of Assembly is required to take an oath or affirmation of allegiance in a form prescribed.

§ 52. A member of one House of Parliament is incapable of sitting as a member of the other House. Every Minister of State has the right to sit and speak in both Houses but may vote only in the House of which he is a member.

*§§ 53–54. The disqualifications for sitting as a senator or member of the House of Assembly are enumerated.

§ 55. Provides a penalty for any person, not a member, who sits or votes in the Senate or House of Assembly.

*§ 56. Provision is made for an annual allowance of £400 to each senator and each member of the House of Assembly.†

*§§ 57–58. Provision is made for the powers, privileges, and immunities of both Houses and for the making of rules and orders.

POWERS OF PARLIAMENT (SECTIONS 59 TO 67).

§ 59. Parliament has full power to make laws for the peace, order, and good government of the Union.

§§ 60–62. Bills appropriating revenue or imposing taxation must originate in the House of Assembly. The Senate may not amend such Bills nor may it amend any Bills so as to increase any proposed charges or burden on the people. The appropriation of any part of the public revenue must be recommended by message from the Governor-General before it may be originated or passed as a vote, resolution, address, or bill.

§ 63. Provision is made for the joint sitting of the members of the Senate and the House of Assembly in the event of both Houses not agreeing to amendments of a Bill after other prescribed expedients have failed.

§ 64. The Governor-General may assent to, or withhold assent from a Bill in the King's name, or may reserve the Bill for the signification of the King's pleasure. Bills repealing

† Amended by Act No. 51 of 1926 to £700 per annum.

or amending this section or any of sections 32 to 50, and Bills abolishing provincial councils or abridging their powers, must be so reserved. The mode of dealing with such Bills is defined.

§ 65. The King may disallow any law within one year after it has been assented to by the Governor-General.

§ 66. A Bill reserved for the King's pleasure has no force until it has received the King's assent and the fact has been proclaimed within one year from its presentation to the Governor-General.

§ 67. Two copies of every law, one in English and one in Dutch (one to be signed by the Governor-General) are to be enrolled of record in the office of the Registrar of the Appellate Division of the Supreme Court of South Africa.

PART V—THE PROVINCES.

ADMINISTRATORS (SECTIONS 68 TO 69).

§§ 68–69. Provision is made for the appointment of an administrator in each Province, who holds office for a term of five years. The salaries of the administrators are fixed and provided by Parliament, and may not be reduced during their respective terms of office.

PROVINCIAL COUNCILS (SECTIONS 70 TO 77).

§ 70. In each Province there is a provincial council consisting of the same number of members as are elected in the Province for the House of Assembly; but in no case is the membership to be less than twenty-five.

§ 71. Provision is made for the election of members of the provincial council.

§ 72. A member of the provincial council ceases to be a member on being elected to either House of Parliament.

§ 73. Each provincial council continues for three years from the date of its first sitting.

§ 75. A Chairman is elected by the provincial council, and rules may be made for the conduct of its proceedings.

§ 76. Members receive allowances determined by the Governor-General-in-Council.

77. Provides for freedom of speech in the provincial councils.

EXECUTIVE COMMITTEES (SECTIONS 78 TO 84).

§ 78. An executive committee of four persons, not necessarily members of the council, together with the administrator as chairman, is elected by the provincial council at its first meeting after each general election.

§ 79. Members of the executive committee who are not members of the provincial council may take part in the proceedings of the council but may not vote.

§ 80. The administration of affairs on behalf of the provincial council is carried on by the executive committee, or, when there are not sufficient members to form a quorum by the administrator pending the election of members to fill the vacancies.

§ 81. All powers, authorities, and functions vested in the government of the Colonies at the establishment of the Union are vested in the executive committee so far as they relate to matters in respect of which the provincial council is competent to make ordinances.

§ 82. Questions arising in the executive committee are determined by a majority of votes, the administrator having the casting vote.

§ 83. Provides for the appointment of public officers by the executive committee.

§ 84. The administrator may, and, when required to do so, must act on behalf of the Governor-General-in-Council in regard to all matters in respect of which no powers are reserved or delegated to the provincial council.

POWERS OF PROVINCIAL COUNCILS (SECTIONS 85 TO 91).

*§ 85. The provincial council may make ordinances in relation to certain specified matters. (See section 6 of this chapter, page 104.)

§ 86. Any ordinance made by a provincial council has effect in and for the Province as long and as far only as it is not repugnant to any Act of Parliament.

§87. A provincial council may recommend to Parliament the passing of any law relating to any matter in respect of which it is not competent to make ordinances.

*§ 88. Provision is made for the passing by Parliament of legislation in regard to any matter which requires to be dealt with by a private Act on the recommendation of a Select Committee appointed by the provincial council of the Province to which the matter relates.

§ 89. Provides for the formation of a provincial revenue fund in each Province and for its appropriation by ordinance for the provincial administration generally or for particular purposes, on the recommendation of the Administrator.

§ 90. The Governor-General-in-Council may assent or withhold his assent to a proposed ordinance passed by the provincial council, or may reserve it for further consideration.

§ 91. An ordinance assented to by the Governor-General-in-Council and promulgated by the administrator has the force of law within the Province. Two copies, one English and one Dutch, of each provincial ordinance are to be enrolled of record in the office of the Registrar of the Appellate Division of the Supreme Court of South Africa.

MISCELLANEOUS (SECTIONS 92 TO 94).

§ 92. Provides for the appointment of an auditor of accounts in each Province.

§ 93. All powers, authorities, and functions exercised at the establishment of Union by divisional or municipal councils, or any other duly constituted local authority, are to remain in force until varied or withdrawn by Parliament or a provincial council.

§ 94. The seats of provincial government are Cape Town, Pietermaritzburg, Pretoria, and Bloemfontein.

PART VI—THE SUPREME COURT OF SOUTH AFRICA (SECTIONS 95 TO 116).

*§ 95. The Supreme Court of South Africa is to consist of a Chief Justice of South Africa, the ordinary judges of appeal, and the other judges of the several divisions of the Supreme Court of South Africa in the Provinces.

*§ 96. The Appellate Division of the Supreme Court of South Africa is to consist of the Chief Justice, two ordinary judges of appeal, and two additional judges of appeal assigned from any of the provincial or local divisions of the Supreme Court.

*§ 97. Provides for the appointment of other judges to act temporarily as Chief Justice, ordinary judge of appeal, or additional judge of appeal.

§ 98. The several supreme courts of the four Colonies at the establishment of Union are to become provincial divisions of the Supreme Court of South Africa, each presided over by a judge president. The court of the Eastern Districts of the Cape of Good Hope, the High Court of Griqualand, the High Court of Witwatersrand, and the several circuit courts, are to become local divisions of the Supreme Court. Provision is made for the jurisdiction of the provincial and local divisions.

§ 99. The judges of the supreme courts of the Colonies at the establishment of Union are to become judges of the Supreme Court of South Africa. The Chief Justices of the Colonies to become the Judges President of the provincial divisions, and to retain the title of Chief Justice of their respective Provinces.

*§ 100. Provides for the remuneration of the Chief Justice, ordinary judges of appeal and all other judges of the Supreme Court.

§ 101. Provides for the removal from office of the Chief Justice and other judges of the Supreme Court.

§ 102. The Governor-General-in-Council may postpone filling a vacancy in any division of the Supreme Court other than the Appellate Division should he consider the number of judges may be reduced. The reduction is to be determined by Parliament.

*§§ 103–105. Provision is made for appeals in civil and criminal cases.

§ 106. There is no appeal from the Supreme Court of South Africa to the King-in-Council, but the King-in-Council retains the right to grant special leave to lodge such an appeal.

*§ 107. Provides for the making of rules for the conduct of the proceedings of the Appellate Division.

§ 108. Provides for the framing of rules for the conduct of the proceedings of the several provincial and local divisions.

*§ 109. The Appellate Division sits at Bloemfontein, but may from time to time hold its sittings at other places within the Union.

§ 110. Provides for the number of judges of the Appellate Division to form a quorum on the hearing of appeals.

§ 111. The process of the Appellate Division is to run throughout the Union.

*§ 112. Provides for the issue of writs or other processes by the registrar of every provincial division of the Supreme Court, in the case of judgments or orders given by any other division.

*§ 113. Provides for the removal of any civil suit pending in one provincial or local division of the Supreme Court to another.

§ 114. Provides for the appointment of a registrar and other officers of the Appellate Division.

§ 115. Provides for the admission of advocates and attorneys to practise before the Supreme Court of South Africa and before the Appellate Division.

§ 116. Provision is made for all suits pending in any superior court of any of the Colonies at the establishment of the Union to stand removed to the corresponding division of the Supreme Court of South Africa.

PART VII—FINANCE AND RAILWAYS (SECTIONS 117 TO 133).

*§ 117. All revenues are vested in the Governor-General-in-Council. Provision is made for the formation of a Railway and Harbours Fund and a Consolidated Revenue Fund.

*§118. Provides for the appointment of a commission to inquire into the financial relations which should exist between the Union and the Provinces.

§ 119. The annual interest of the public debts of the Colonies and any sinking funds constituted by law at the establishment of the Union form a first charge on the Consolidated Revenue Fund.

*§ 120. Money is to be withdrawn from the Consolidated Revenue Fund and from the Railway and Harbour Fund only under appropriation made by law; but expenditure may be incurred from the funds until the expiration of two months after the first meeting of Parliament.

§ 121. All stocks, cash, bankers' balances, and securities for money belonging to each of the Colonies at the establishment of the Union are to be the property of the Union.

§ 122. All property and rights belonging to the several Colonies are vested in the Governor-General-in-Council subject to any encumbrances thereon.

§ 123. All rights to mines, minerals, and precious stones belonging to the Government of any of the Colonies are vested in the Governor-General-in-Council.

§ 124. The Union is to assume all debts and liabilities of the Colonies existing at its establishment under certain conditions.

§ 125. All ports, harbours, and railways are vested in the Governor-General-in-Council. No railways and harbours are to be constructed without the sanction of Parliament.

*§ 126. Provides for the control and management of the railways, ports, and harbours of the Union by a board consisting of not more than three commissioners and a minister of State as chairman.

§ 127. The railways, ports, and harbours are to be administered on business principles. The total earnings are not to be more than sufficient to meet the necessary outlay on working, etc., and the payment of interest due on capital.

*§ 128. Provides for the establishment out of railway and harbour revenue of a fund to be used for maintaining uniformity of rates notwithstanding fluctuations in traffic.

*§ 129. All balances standing to the credit of any fund established in any of the Colonies for railway or harbour purposes at the establishment of the Union are to be under sole control of the Board.

*§ 130. Every proposal for construction is to be considered by the Board. The Board is to frame an estimate of the annual loss which in its opinion will result from construction carried out contrary to its advice. The amount of such estimate, when approved by the Controller and Auditor General, is to be paid annually to the Railway and Harbour Fund from the Consolidated Revenue Fund. If in any year the actual loss incurred is less than the estimate, the amount paid over is to be reduced accordingly.

§ 131. Provides for compensation for any loss incurred by the Board for provision of services gratuitously or at an insufficient rate of charge.

*§ 132. Provides for the appointment of a Controller and Auditor General by the Governor-General-in-Council, the office to be held during good behaviour.

§ 133. Provides for the compensation of Pietermaritzburg and Bloemfontein for any loss sustained by their ceasing to be seats of government; and of the municipal councils of Cape Town and Pretoria for similar losses, if any.

PART VIII—GENERAL (SECTIONS 134 TO 148).

§ 134. Provides for the election of senators and of members of the executive committees of the provincial councils according to the principle of proportional representation.

§ 135. All laws in force in the several Colonies at the establishment of the Union are to continue in force until repealed or amended by Parliament or the provincial councils. All legal commissions to continue as if the Union had not been established.

§ 136. Provision is made for free trade throughout the Union.

*§ 137. Both English and Dutch are the official languages of the Union.

§ 138. Persons naturalized in any of the Colonies are deemed to be naturalized throughout the Union.

*§ 139. Provides for the control of the administration of justice throughout the Union.

§ 140. All officers of the public service of the Colonies are to be become officers of the Union.

§ 141. Provides for the establishment of a public service commission to make recommendations for the reorganization and readjustment of the departments of the public service. The provisions of this section are not to apply to any service or department under the control of the Railway and Harbour Board.

*§ 142. Provides for the appointment of a permanent public service commission with powers relating to the appointment, discipline, retirement, and superannuation of public officers.

§ 143. Provides for pensions or compensation for officers of the public service of the Colonies not retained in the service of the Union.

§ 144. Any officer of the public service of any of the Colonies who is retained in the service of the Union is to retain all his existing and accruing rights and pension privileges.

§ 145. The services of officers in the public service of any of the Colonies are not to be dispensed with by reason of their want of knowledge of either the English or Dutch language.

§ 146. Provides for pension or compensation for any permanent officer of the Legislature of any of the Colonies who is not retained.

§ 147. The control and administration of native affairs and matters specially affecting Asiatics is to vest in the Governor-General-in-Council.

§ 148. All rights and obligations under any convention or agreements which are binding on any of the Colonies are to devolve upon the Union. The provisions of the railway agreement between the Governments of the Transvaal, the Cape of Good Hope and Natal are to be given effect to by the Government of the Union.

PART IX—NEW PROVINCES AND TERRITORIES (SECTIONS 149 TO 151).

§ 149. Provision is made for the alteration of boundaries and the formation of new provinces.

§§ 150–151. Provide for the admission into the Union of territories administered by the British South Africa Company, and territories belonging to or under the protection of His Majesty, inhabited wholly or in part by natives, upon the terms embodied in the schedule to the Act.

PART X—AMENDMENT OF THE ACT (SECTION 152).

§152. Provides for the amendment of the Act and the procedure to be followed in the repeal or alteration of §§ 33, 34, 35, and 137.

*§ 153. The Act is to be known as the "South Africa Act, 1909."

SCHEDULE.

§ 1. The Governor-General-in-Council is the legislative authority for any territory transferred to the Union.

§ 2. The Prime Minister is charged with the administration of any territory transferred, and is advised by a commission of not less than three members.

§ 3. Provides for the appointment of the members of the commission.

§ 4. Defines the duty of the members of the commission.

§ 5. Provides that a member dissenting from the decision of the majority may have the reasons for his dissent recorded.

§ 6. The members of the commission have access to all official papers concerning the territories.

§ 7. The Prime Minister may not make any decision relating to the administration or legislation for the territories without obtaining the opinion of the commission.

§ 8. Provides for the dispatch by the Prime Minister of urgent communications or orders without obtaining the opinion of the commission.

§ 9. Provides the method of procedure in the event of the views of the Prime Minister not agreeing with the recommendations of the commission.

§ 10. Provides the method of procedure in the event of a decision made or action taken by the Governor-General-in-Council contrary to the recommendations of the commission.

§ 11. Provides for the appointment of a resident commissioner for each territory.

§ 12. All duties of customs levied in the territories are to be paid into the Treasury of the Union. Provision is made for the annual payment out of the Treasury of a sum towards the cost of administration of each territory.

§ 13. Provision is made for supplementing any deficiency in revenue of one territory from the surplus funds of another territory or from the Union Government.

§ 14. Prohibits the alienation of land from the native tribes inhabiting reserves in Basutoland, Bechuanaland Protectorate, and Swaziland.

§ 15. The sale of intoxicating liquor to natives is prohibited in the territories.

§ 16. The custom, where it exists, of holding pitsos or other recognized forms of native assembly is to be maintained in the territories.

§ 17. No differential duties or imposts on the produce of the territories are to be levied. The laws of the Union relating to customs and excise are to apply to the territories.

§ 18. The inhabitants of the territories are to have free intercourse with the rest of South Africa subject to the laws of the Union.

§ 19. Revenues derived from any territory are to be expended on behalf of that territory. Provision may be made for the appropriation of a portion of the revenue as a contribution towards the cost of defence and other services performed by the Union for the whole of South Africa.

§ 20. The King may disallow any law made by the Governor-General-in-Council by proclamation for any territory within one year of the date of proclamation.

§ 21. Provides for salaries, pensions, and expenses of the members of the commission.

§ 22. The rights as existing at the date of transfer of officers of the public service employed in any territory are to remain in force.

§ 23. Appeal is to be made to the Appellate Division of the Supreme Court of South Africa.

§ 24. Provides for the preparation by the commission of an annual report on the territories.

§ 25. All Bills to amend or alter the provisions of this Schedule are to be reserved for the signification of His Majesty's pleasure.

SOUTH AFRICA ACT, 1909—SCHEDULE OF AMENDING, MODIFYING, OR DEFINITIVE LEGISLATION TO 1925.

Section of *South Africa Act.*	Amended, Defined, or Amplified by.	Extent of Amendment, etc.
1. Title.....	Act No. 9 of 1925.....	Title transferred to new section, 153, and acknowledgment of sovereignty and guidance of Almighty God substituted in Section 1 therefor.
4. Proclamation of Union.....	Act No. 49 of 1919.....	As to the territory of South West Africa.
	§2, Act No. 32 of 1921, No. 42 of 1925.	
14. Appointment of Ministers of State	Act No. 34 of 1925.....	Increasing number of Ministers of State from *ten* to *eleven*.
15. Appointment and removal of officers	§9, Act No. 27 of 1923...	As to appointment of officers in the public service.
	§19, Act No. 27 of 1923..	As to the removal of such officers.
24 and 25. Original constitution of Senate	§1, Act No. 9 of 1920....	As to the ending of the period of ten years.
	Act No. 54 of 1926.....	As to the dissolution of the Senate.
34. Increase of number of members of the House of Assembly	Act No. 2 of 1910.....	As to the taking of a census for the purposes of delimitation of electoral divisions.
	Act No. 15 of 1918.....	As to the taking of a census in May, 1918, to be regarded as the quinquennial census; the next census to be taken in 1921.
	Act No. 31 of 1918.....	As to the inclusion, for the purposes of the parliamentary delimitation based on the census of 1918, of European male adults absent from the Union on war service.
37. Elections.....	Act No. 12 of 1918.....	As to the registration of voters and the conduct of elections for the House of Assembly.
53. Disqualifications for being a member of either House	Act No. 10 of 1915.....	As to removal of certain disabilities from members of Parliament or other persons who assisted in naval or military operations.
	§1, Act No. 23 of 1920...	As to members of the Native Affairs Commission.
56. Allowances of members*....	Act No. 51 of 1926.....	As to method of payment of allowances of members of House of Assembly and Senate and exemptions from deductions.
57. Privileges of Houses of Parliament	Act No. 19 of 1911.....	Defining the powers and privileges of Parliament.
85. Powers of Provincial Councils	Acts Nos. 10 of 1913, 9 of 1917, 6 of 1920, §2 of 40 of 1920, 5 of 1921, 5 of 1922, and 46 of 1925	As to further powers conferred on Provincial Councils.
	§§ 11, 12 of Act No. 5 of 1922	As to higher education and the appropriation of provincial funds to certain educational purposes.
88. Power to deal with matters proper to be dealt with by private Bill legislation.	Act No. 20 of 1912.....	As to private Bill procedure.
95. Constitution of the Supreme Court 96. Appellate Division of the Supreme Court 97. Filling of temporary vacancies in Appellate Division..... 100. Appointment and remuneration of judges	Act No. 12 of 1920.....	As to the reconstitution of the Appellate Division to consist of the Chief Justice and four Judges of Appeal.
103. Appeals to Appellate Division	§ 5, Act No. 1 of 1911.....	As to appeals by consent of parties.
	§ 1, Act No. 1 of 1911....	As to appeals from the Native High Court of Natal.
	§ 3, Act No. 12 of 1920...	As to appeals from the High Court of South West Africa.
	§§ 368–372, Act No. 31 of 1917	As to procedure in appeals in criminal cases from Supreme Courts and special reference of a point of law in such cases.

SOUTH AFRICA ACT, 1909—SCHEDULE OF AMENDING, MODIFYING, OR DEFINITIVE LEGISLATION TO 1925—*continued.*

Section of *South Africa Act.*	Amended, Defined, or Amplified by.	Extent of Amendment etc.
107. Rules of procedure in Appellate Division	Act No. 12 of 1920.....	Deletion of the word "Ordinary."
109. Place of sittings of Appellate Division	§ 16 of Act No. 27 of 1912	As to the hearing of an appeal elsewhere than at Bloemfontein.
112. Execution of processes of provincial divisions	§ 5 (1), Act No. 24 of 1922	As to the High Court of South West Africa, which is to be regarded as a Division of the Supreme Court.
113. Transfer of suits from one provincial or local division to another	§ 14, Act No. 27 of 1912..	As to the removal of civil proceedings.
	§§ 141, 142, Act No. 31 of 1917	As to the removal of criminal proceedings.
	§ 8, Act No. 24 of 1922..	As to the removal of civil or criminal proceedings from the High Court of South West Africa.
117. Constitution of Consolidated Revenue Fund and Railway and Harbour Fund	§ 4, Act No. 33 of 1922....	As to the Defence Endowment Fund
	§ 2 (3), Act No. 20 of 1922	As to South West Africa.
118. Commission of Inquiry into financial relations between Union and Provinces	Acts Nos. 10 of 1913, 9 of 1917, 6 of 1920, 5 of 1921, 5 of 1922, 21 of 1924, and 46 of 1925	As to the financial relations between the Union and the Provinces.
120. Requirements for withdrawal of money from funds	§ 2 (3) Act No. 20 of 1922	As to railways in South West Africa.
126. Constitution of Harbour and Railway Board	Act No. 13 of 1915.....	As to period of office of the first members of the Railway Board.
	Act No. 17 of 1916.....	As to the functions of the Board.
128. Establishment of fund for maintaining uniformity of railway rates.....	§ 3 (1), Act No. 17 of 1916	As to the duty of the Railway Board with regard to funds.
129. Management of railway and harbour balances.....		
130. Construction of harbour and railway works	§ 3 (2), Act No. 17 of 1916	As to details required in report.
	§ 2, Act No. 20 of 1922....	As to South West Africa.
132. Controller and Auditor General	§ 1, Act No. 21 of 1911....	Section repealed.
137. Official Languages.....	Act No. 8 of 1925.....	The term "Dutch" to read as including "Afrikaans."
139. Administration of Justice...	§ 2, Act No. 14 of 1914....	As to the *curator ad litem* of lunatics, the Attorney-General being substituted for the Minister.
	§§ 14 and 88, Act No. 38 of 1916.....	
	§ 13, Act No. 27 of 1912..	As to the abolition of the office of the Crown Prosecutor of Griqualand West.
142. Public Service Commission..	§ 2, Act No. 29 of 1912 as amended by § 3, Act No. 39 of 1914	Appointment, powers, and duties of the Commission.
142. Public Service Commission..	§§2, 3, 4, 5, 6, 7, and 8 of Act No. 27 of 1923	Appointment, powers, and duties of the Commission.

§ 3. Central Administration.

1. **General.**—Under the *South Africa Act*, the supreme executive authority in the Union is vested in the King, and may be administered by him in person, or by the Governor-General as his representative. There is an Executive Council to advise the Governor-General. The term Governor-General-in-Council is understood as the Governor-General acting with the advice of the Executive Council, the members of which are chosen by him and hold office during his pleasure. These in practice are the Ministers charged with the administration of the Departments of State (who may not exceed eleven in number). They are appointed by the Governor-General; but the mode of the selection of Ministers and the formation of a Ministry conforms with the practice under the British Constitution, as does also the method of Government by a Cabinet possessing the confidence of a majority in Parliament.

2. **The Governor-General.**—The Governor-General (section 9 of the *South Africa Act*), is appointed by and represents the King, and is also Commander-in-Chief of the naval and military forces within the Union. The salary, to be paid out of the Consolidated Revenue Fund of the Union, is fixed (section 10 of the *South Africa Act*) at £10,000 annually.

Letters Patent constituting the Office of Governor-General and Commander-in-Chief and Royal Instructions were issued on the 29th December, 1909, and were given in full in the first four issues of this Year Book.*

3. Ministries of the Union.—The first Ministry of the Union, which assumed office on the 31st May, 1910, upon the establishment of the Union, was constituted as follows :—

FIRST MINISTRY OF THE UNION. [31.5.10 to 19.12.12.]

Department.	Minister.	Department.	Minister.
Prime Minister and Agriculture	General the Right Hon. Louis Botha, P.C.	Finance	Hon. H. C. Hull.
Railways and Harbours	Hon. J. W. Sauer.	Lands	Right Hon. A. Fischer, P.C.
Interior, Mines, and Defence	General the Hon. J. C. Smuts, K.C.	Native Affairs	Hon. H. Burton, K.C.
Justice	General the Hon. J. B. M. Hertzog.	Commerce and Industries	Right Hon. Sir F. R. Moor P.C., K.C.M.G.
Education	Hon. F. S. Malan.	Public Works and Posts and Telegraphs	Hon. Sir David P. de Villiers Graaff, Bart.
		Without Portfolio	Senator the Hon. Dr. C. O'Grady Gubbins.

The second Ministry of the Union also was formed by General the Right Hon. Louis Botha, P.C., on the 20th December, 1912.

On the death of General Botha, the third Ministry of the Union was constituted (3rd September, 1919) by General the Right Hon. J. C. Smuts, P.C., C.H., K.C. The personnel of these two Ministries, as well as the changes introduced by General Smuts on the 19th March 1920, and the 10th March, 1921, were given in *Official Year Book* No. 6 and previous issues. The fourth Ministry of the Union, constituted on the 30th June, 1924, was as follows :—

FOURTH MINISTRY OF THE UNION (CONSTITUTED ON 30th JUNE, 1924).

Department.	Minister.	Department.	Minister.
Prime Minister and Native Affairs	General the Hon. J. B. M. Hertzog.	Mines and Industries	Hon. F. W. Beyers, K.C.
Justice	Hon. T. J. Roos, K.C.	Railways and Harbours	Hon. C. W. Malan.
Interior, Public Health, and Education	Hon. Dr. D. F. Malan.	Lands	Hon. P. G. W. Grobler.
Defence	Colonel the Hon. F. H. P. Creswell.	Agriculture	General the Hon. J. C. G. Kemp.
Finance	Hon. N. C. Havenga.	Posts and Telegraphs and Public Works	Hon. T. Boydell.

On the 12th November, 1925, Mr. W. B. Madeley assumed the Portfolios of Posts and Telegraphs and Public Works, while Mr. Boydell took up the Portfolio of Labour, which had hitherto been held by Col. Creswell, conjointly with that of Defence.

4. Departments of State and Ministers.—The subjoined table gives each Department of State which has been constituted from 1910, with the names of each Minister of such Department and the date of assumption of office. The number of Ministers in charge of Departments of State must not exceed eleven (section 14 of the *South Africa Act* as amended) :—

DEPARTMENTS OF STATE IN THE UNION AND MINISTERS FROM 31st MAY, 1910.

Department and Minister.	Date of Assumption of Office.	Department and Minister.	Date of Assumption of Office.
Prime Minister—		†*Commerce and Industries*—	
General the Right Hon. Louis Botha, P.C.	31. 5.10	Right Hon. Sir F. R. Moor, P.C., K.C.M.G.	31. 5.10
General the Right Hon. J. C. Smuts, P.C., C.H.	3. 9.19	Colonel the Hon. G. Leuchars, C.M.G., D.S.O.	23. 2.11
General the Hon. J. B. M. Hertzog	30. 6.24	*Defence*—	
Agriculture—		General the Right Hon. J. C. Smuts, P.C., C.H.	31. 5.10
General the Right Hon. Louis Botha, P.C.	31. 5.10	Colonel the Hon. H. Mentz	19. 3.20
Hon. J. W. Sauer	25. 6.12	Colonel the Hon. F. H. P. Creswell	30. 6.24
General the Right Hon. Louis Botha, P.C.	20.12.12	*Education*—	
Hon. H. C. van Heerden	23. 9.13	Hon. F. S. Malan	31. 5.10
Hon. F. S. Malan	19. 3.20	Hon. Patrick Duncan, C.M.G.	10. 3.21
Right Hon. Sir Thomas Smartt, P.C., K.C.M.G.	10. 3.21	Hon. Dr. D. F. Malan	30. 6.24
General the Hon. J. C. G. Kemp	30. 6.24	*Finance*—	
		Hon. H. C. Hull	31. 5.10
		General the Hon. J. C. Smuts, K.C.	13. 6.12

* A warrant authorizing the use of a Great Seal for the Union was published in the *Government Gazette* under Government Notice No. 422 of 1911.

† Portfolio abolished in 1912, see Mines and Industries.

DEPARTMENT OF STATE IN THE UNION AND MINISTERS FROM 31ST MAY, 1910—(*continued*).

Department and Minister.	Date of Assumption of Office.
Finance—(continued).	
Hon. H. Burton, K.C.	23. 9.13
Hon. Sir David P. de Villiers Graaff, Bart.	24. 2.15
Hon. H. Burton, K.C.	1. 2.16
Hon. Thos. Orr, C.M.G.	4.10.17
Hon. H. Burton, K.C.	19. 3.20
Hon. H. C. Havenga	30. 6.24
Interior—	
General the Hon. J. C. Smuts, K.C.	31. 5.10
Right Hon. A. Fischer, P.C.	25. 6.12
Hon. Sir Thos. Watt, K.C.M.G.	1. 2.16
Hon Patrick Duncan, C.M.G.	10. 3.21
Hon. Dr. D. F. Malan	30. 6.24
Justice—	
General the Hon. J. B. M. Hertzog.	31. 5.10
Hon. J. W. Sauer	20.12.12
Hon. N. J. de Wet, K.C.	23. 9.13
Hon. T. J. Roos, K.C.	30. 6.24
Labour—	
Col. the Hon. F. H. P. Creswell	30. 6.24
Hon. T. Boydell	12.11.25
Lands—	
Right Hon. A. Fischer, P.C.	31. 5.10
Hon. H. S. Theron	23. 9.13
Colonel the Hon. H. Mentz	1. 2.16
Colonel the Hon. Deneys Reitz	10. 3.21
Hon. P. G. W. Grobler	30. 6.24
Mines—	
General the Hon. J. C. Smuts, K.C.	31. 5.10
Hon. F. S. Malan	1. 2.12
Mines and Industries—	
Hon. F. S. Malan	20.12.12
Hon. F. W. Beyers, K.C.	30. 6.24
Native Affairs—	
Hon. H. Burton, K.C.	31. 5.10
General the Hon. J. B. M. Hertzog.	25. 6.12
Hon. J. W. Sauer	20.12.12
General the Right Hon. Louis Botha, P.C.	23. 9.13
General the Right Hon. J. C. Smuts, P.C., C.H.	3. 9.19
General the Hon. J. B. M. Hertzog	30. 6.24
Posts and Telegraphs—	
Hon. Sir David P. de Villiers Graaff, Bart.	31. 5.10
Hon. Sir Thos. Watt, K.C.M.G.	20.12.12
Hon. Sir J. H. Meiring Beck, Kt.	1. 2.16
Hon. Thos. Orr, C.M.G. (Actg.)	16. 5.19
Hon. Sir J. A. C. Graaff, K.C.M.G.	19. 3.20
Hon. Sir Thomas Watt, K.C.M.G.	10. 3.21
Hon. T. Boydell	30. 6.24
Hon. W. B. Madeley	12.11.25
Public Health—	
Hon. Sir Thos. Watt, K.C.M.G.	1. 7.19
Hon. Patrick Duncan, C.M.G.	10. 3.21
Hon. Dr. D. F. Malan	30. 6.24
Public Works—	
Hon. Sir David P. de Villiers Graaff, Bart.	31. 5.10
Colonel the Hon. G. Leuchars, C.M.G., D.S.O.	1. 2.12
Hon. Sir Thos. Watt, K.C.M.G.	20.12.12
Senator the Hon. Sir Jacobus A. C. Graaff, K.C.M.G.	19. 3.20
Hon. Sir Thomas Watt, K.C.M.G.	10. 3.21
Hon. T. Boydell	30. 6.24
Hon. W. B. Madeley	12.11.25
Railways and Harbours—	
Hon. J. W. Sauer	31. 5.10
Hon. H. Burton, K.C	25 6.12
Hon. Sir Thos. Watt, K.C.M.G.	19. 3.20
Hon. J. W. Jagger	10. 3.21
Hon. C. W. Malan	30. 6.24
Ministers without Portfolio—	
Senator the Hon. Dr. C. O'Grady Gubbins	31. 5.10
Hon. Sir David P. de Villiers Graaff, Bart.	24. 1.13
Senator the Hon. Sir Jacobus A. C. Graaff, K.C.M.G.	23. 9.13

5. Functions of Departments.—The tabular statement given hereunder enumerates the various Departments of State in the Union, and the Departments, Sub-Departments and Branches thereof, the various Laws administered, and the principal matters dealt with in the case of each Department:—

FUNCTIONS OF DEPARTMENTS OF STATE.

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters Dealt with by the Department.
PRIME MINISTER.	—	Communications between His Excellency the Governor-General-in-Council and the Departments of State, and between the Executive and Parliament. Communications with His Majesty's Government and the British Dominions. Communications with League of Nations and Mandated Territory of South West Africa.
AGRICULTURE. (*a*) Veterinary. (*b*) Veterinary Education and Research. (*c*) Field and Animal Husbandry (including Dairy, Tobacco, and	Diseases of Stock Acts. Dipping Tanks Advances Act. Agricultural Pests Act. Wine, Spirits and Vinegar Act. Ferti-	Investigation, control, and eradication of diseases of stock. Issue of vaccines for inoculation of live stock. Inspection of meat, butter, eggs, grain, and other agricultural produce for export.

FUNCTIONS OF DEPARTMENTS OF STATE—*continued.*

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters Dealt with by the Department.
AGRICULTURE—*contd.*		
Cotton, Horticulture and Viticulture Sub-Divisions). (*d*) Botany. (*e*) Entomology. (*f*) Chemistry. (*g*) Education and Extension. (*h*) Agricultural Economics and Markets (including Co-operation Sub-Division).	lizers, Farm Foods, Seeds and Pests Remedies Act. Fencing Acts. Registration of Export Act. Agricultural Produce Export Act. Agricultural Co-operative Societies Act. Dairy Industry Act. Fruit Export Act. Brands Act. Registration of Pedigree Live Stock Act. Beef Bounties Export Act. Agriculture Products Grading Act. Drought Distress Relief Act. Agricultural Industries Advancement Act. Public Auctions and Transactions in Live Stock and Produce Act. Wild Birds Export Prohibition Act. Orchard Cleansing Act.	Prevention of adulteration of wine, spirits and vinegar. Control of the sale of fertilizers, farm foods, seeds and pest remedies. Improvement of sheep and wool industry. Eradication of scab. Manufacture and sale of dairy produce and regulation of the dairy industry. Improvement of pastures. Growing of cereals and fodder plants. Control of plant diseases and insect pests. Agricultural chemistry. Viticulture. Tobacco culture. Cotton cultivation. Horticulture. Registration of brands. Collection and distribution of guano. Dry-farming. Agricultural co-operation. Issue of bulletins, etc. Circulation of publications on agriculture. Crop estimates. Agricultural education (including scholarships and bursaries for agricultural study abroad). Agricultural extension work. Agricultural experiments. Sales of pedigree stock. Household science. Agricultural economics. Marketing and Market Reports.
FORESTRY.	Forest Acts.	Forestry.
DEFENCE.		
Headquarters— (*a*) Secretarial Section— General Branch. Financial Branch. (*b*) General Staff Section— Military School. (*c*) Adjutant-General's Section— War Records. (*d*) Quartermaster-General's Section— Ordnance Branch. Ordnance Depots (3) Supplies and Transport Branch. Veterinary Services Branch. (*e*) Medical Services Section. (*f*) Director of Air Services Section. *District Headquarters*— District Staff Officers— Military Districts (15)	Defence Act. Arms and Ammunition Acts. Defence Endowment Property and Account Act.	Establishment and maintenance of the Union Defence Forces and all matters in relation to the defence of the Union. Control of importation, exportation, sale and possession of arms and ammunition.

FUNCTIONS OF DEPARTMENTS OF STATE—*continued.*

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters Dealt with by the Department.
EDUCATION (UNION) AND CHILD WELFARE	University Acts, Higher Education Additional Provision Act. Higher Education Act. Anatomy Act. Children's Protection Acts. Adoption of Children Act.	Supervision of all Higher Education. Universities of South Africa, Cape Town, Stellenbosch, and the Witwatersrand. University Colleges (6), and South African Native College. Technical Colleges at Durban, Cape Town, Johannesburg, East London, and Port Elizabeth, and vocational courses in other centres. Training and certification of teachers. Conduct of technical and commercial examinations. Industrial schools and certified and other institutions under the Children's Protection Acts.
FINANCE.		
(*a*) Treasury.	Appropriation, Loans, Pensions, Banking, Insurance, Currency.	Appropriation and supply (except for the services of the Railways and Harbours Administration.) Currency and banking. Insurance. Raising and management of loans. Banker for spending departments. Pensions and gratuities. Military Pensions. Medical work. Financial relations with Provinces. General control of finances of the Union (excepting the finances of the Railways and Harbours Administration).
(*b*) Customs and Excise.	Customs and Excise, Copyright (Imported articles), Merchandise marks (Imported articles) and Merchant Shipping.	Customs and excise. Registration of shipping. Protection of trade marks and copyrights so far as imported goods are concerned. Protection of public from adulterated food and drink so far as imported goods are concerned.
(*c*) Inland Revenue.	Income Tax, Estate and Succession Duties, Licence Duties, Native Taxes, Transfer Duties, Taxation of Mining.	Imposition, assessment, and collection of revenues other than customs and excise, and postal.
(*d*) Public Debt Commissioners.	Public Debt Commissioners.	Investment of trust funds and application of sinking funds for the redemption of debt.
HIGH COMMISSIONER (LONDON).	—	Representation of the Government of the Union in the United Kingdom for such purposes as may be required. Service as agency for the Union in London for financial, commercial, and other purposes.
CONTROLLER AND AUDITOR GENERAL.	Exchequer and Audit Act, No. 21 of 1911, and Exchequer and Audit Act Amendment Act, No. 31 of 1916.	Control of issues from the Exchequer. Audit of the Public Accounts (including those of the Railways and Harbours Administration) and reporting to Parliament thereon.

FUNCTIONS OF DEPARTMENTS OF STATE—*continued.*

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters Dealt with by the Department.
INTERIOR. (*a*) Mental Hospitals. (*b*) Immigration and Asiatic Affairs. (*c*) Census and Statistics. (*d*) Archives. (*e*) Observatories. (*f*) National Museums, Libraries, and Kindred Institutions. (*g*) Births, Deaths, and Marriages. (*h*) Government Printing. (*i*) Indian Immigration Bureau.	Births and Deaths Registration Act. Marriage Laws. Mental Disorders Act. Immigrants Regulation Act. Registration of Asiatics and relative Acts. Chinese Exclusion Act. Electoral Act. Naturalization of Aliens Act. Newspaper Registration Laws. Census Act. Statistics Act. Registration of Architects Act. Indian Immigrations Trust Board Acts. Museums and Libraries Act.	Mental Hospitals and contingent matters. Immigration and Asiatic affairs. Electoral matters. Naturalization. Passports. Consular matters. Newspaper registration. Missing persons. Libraries, museums, and kindred matters. Union Observatory. Census and statistics. Registration of births, marriages, and deaths. Government printing and publications. Archives. Registration of architects in Transvaal. Questions relating to late enemy subjects. General matters involving communication with Public Service Commission. Provincial Administrations. Other miscellaneous matters.
PUBLIC SERVICE COMMISSION.	Public Service Acts.	See paragraphs 6, 7, and 8 hereunder.
JUSTICE. (*a*) Superior Courts (including Native High Court [Natal]). (*b*) Magistrates' Courts. (*c*) Courts of Special Justice of the Peace. (*d*) Attorneys-General. (*e*) Police. (*f*) Prisons. (*g*) Master's Offices. (*h*) Patents, Designs, Trade Marks and Copyright, and Registration of Companies. (*i*) Sheriffs.	All Acts relating to Superior and Inferior Courts. Police and Prisons Acts. Criminal Procedure and Evidence Act. Acts dealing with the Preservation of Peace and good order. Extradition Act and treaties thereunder. Fugitive Offenders Act and Orders in Council issued thereunder. Liquor Laws. Justices of the Peace and Commissioners of Oaths Act. Administration of Estates Acts. Insolvency Act. Patents, Designs, Trade Marks and Copyright Act. Companies Acts. Inquest Laws. Jury Acts.	Appointment of Judges, Attorneys-General, Magistrates, and Special Justices of the Peace. Justices of the Peace and Commissioners of Oaths. All matters connected with the Supreme Court, including Appellate, Provincial and Local Divisions, and Magistrates' Courts, and Courts of Special Justices of the Peace. Sheriffs. Capital punishment. Remissions and reprieves. Extradition. Fugitive offenders. Messengers of Courts. Jurors. Inquests. Liquor laws and appointment of licensing courts. Legal advice to Government Departments and conduct of Government litigation. Drafting of Government Bills and publication of Statutes and Statutory Regulations. Administration of estates. Authentications. Patents, Designs, Trade Marks, and Copyright. Registration of companies. Insolvencies and assignment of estates. Guardians' funds. Inquiries into shipping casualties, railway and harbour accidents. Police administration. Prisons administration, including juvenile and juvenile adult industrial reformatories, road camps, farm colonies, work colonies, refuge or rescue homes, and inebriate reformatories. Suppression of white slave traffic.

FUNCTIONS OF DEPARTMENTS OF STATE—*continued.*

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters Dealt with by the Department.
IRRIGATION.* (*a*) Irrigation. (*b*) Water Boring. (*c*) Meteorology. (*d*) Hydrographic Survey. (*e*) Geological Investigation.	Irrigation and Conservation of Waters Act.	Professional advice to farmers and public bodies. Construction and supervision of large works for Irrigation Boards. Administration and control of major Government irrigation works. Advice on water supply to municipalities. Reconnaissance surveys of river valleys. Boring for farmers and public bodies. Collection of hydrographic data of all streams. Geological investigation of dam sites and irrigation projects. Loans to farmers and others for irrigation purposes. Administration of Water Courts. Rainfall records and forecasting of weather. Upper air research.
LABOUR.	Regulation of Factories Act, 1918. Regulation of Wages. Apprenticeship and Improvers Act, 1918. Juveniles Act, 1921. Apprenticeship Acts, 1922, 1924. Industrial Conciliation Act, 1924. Wage Board Act, 1925	(1) Employment generally, including Government and relief works. (2) Conciliation boards, industrial councils, registration of trade unions and employers' organizations, private registry offices, etc. (3) Juvenile affairs. (4) Apprenticeship. (5) Wage Boards. (6) International Labour Office affairs. (7) Factories.
LANDS. (*a*) Surveys. (*b*) Deeds.	All acts relative to Crown lands; surveys; registration of deeds.	Administration, control, and disposal of Crown lands. Land surveys. Registration of deeds.
MINES AND INDUSTRIES. (*a*) Administrative Division. (*b*) District Administration—Mining Commissioners. (*c*) Engineering Division.	Mineral Acts. Precious Stones Acts. Mines and Works Acts. Explosives Act. Power Act. Registration of Deeds and	General administration and control of mining and prospecting. Issue of claim licences, prospecting permits, mineral leases, alluvial diamond licences, surface rights, etc., on mining ground. Trading

* Irrigation was transferred from the control of the Minister of Lands to that of the Minister of Justice as from the 1st November, 1924.

FUNCTIONS OF DEPARTMENTS OF STATE—*continued.*

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters Dealt with by the Department.
MINES AND INDUSTRIES *contd.* (*d*) Geological Survey Division. (*e*) Registration Division —Mining Titles and Rand Townships. (*f*) Miners' Phthisis Board. (*g*) Miners' Phthisis Medical Bureau. (*h*) Assize Division. (*i*) Board of Trade and Industries. (*j*) Electricity Control Board	Titles Act. Townships Amendment Act. Trading on Mining Ground Acts. Miners' Phthisis Acts. Diamond Cutting Act. Weights and Measures Act. Adulterated Leather Act. Board of Trade and Industries Acts. Electricity Act.	on mining ground. Geological reports and surveys, and geological work generally throughout the Union. Mining engineering and control of mines. Regulations governing underground and surface work on mines. Inspection of mines. Control of explosives generally, including manufacture and storage. Miners' training schools. Registration of mining titles, mineral leases, surface rights, etc. Registration work in connection with Rand Townships. Control and payment of miners' phthisis compensation. Medical examination of applicants and periodical examination of all mine workers and other matters generally connected with miners' phthisis. Industrial development. Investigations by Board of Trade and Industries. Co-ordination between public and Union oversea trade commissioners. Supply of power and permits to sell power. Weights and measures.
NATIVE AFFAIRS.	All Acts relating specially to Natives.	Administration of the Native Territories in the Transkei, Zululand, and elsewhere, including native reserves. Direction and supervision of the recruitment of native labour, especially for mining purposes. Control of native taxation and pass system. General supervision of all matters concerning the welfare and interests of the native races of the Union.
POSTS AND TELEGRAPHS.	The Post Office Administration Act, 1911. Aviation Act, 1923.	Control of all postal, ocean mail, telegraph and telephone services of the Union, Money Order services and Savings Bank. Control of nomenclature of places. Civil aviation. Wireless telephony and telegraphy. Government bureau of national information. Government garages and motor transport.

FUNCTIONS OF DEPARTMENTS OF STATE—*continued.*

Department, Sub-Departments, and Divisions.	Laws Administered.	Matters dealt with by the Department.
PUBLIC HEALTH.	Public Health Acts. Food and Drugs Adulteration Acts. Medical, Dental, and Pharmacy Acts. Laws relating to opium and other habit-forming drugs. Housing Act. Leprosy Laws.	Public health. Venereal diseases. Food adulteration. Port health matters. Registration of medical practitioners, chemists, dentists, midwives, and trained nurses. Habit-forming drugs. Medical and Pharmacy Councils. District surgeons. Pathological laboratories. Vaccination. Inspection of areas of local authorities, water supplies, drainage schemes, etc. Medical services, Defence, including military hospitals. Leprosy and leper institutions. Medical boards. Medical advice and assistance to other Government Departments, the Public Service Commission, and Provincial Administrations.
PUBLIC WORKS. District Engineers— (*a*) Bloemfontein. (*b*) Cape Town. (*c*) Johannesburg. (*d*) Ladysmith, Natal. (*e*) Pietermaritzburg. (*f*) Port Elizabeth. (*g*) Potchefstroom. (*h*) Pretoria. Electrical Engineer.	—	Design, erection, and maintenance of (*a*) public buildings for Union and provincial purposes (exclusive of school buildings in the Cape Province) and (*b*) provincial and inter-provincial bridges. Provision of accommodation and services in connection therewith (including the hiring of all property required) for Union Government purposes. Lettings of Government buildings. Provision and maintenance of mechanical and electrical equipment. Miscellaneous agency and consulting services for Provincial Administrations and university authorities.

6. **The Public Service.**—The organization and discipline of the Public Service of the Union is provided for by the *Public Service and Pensions Act*, No. 27 of 1923. By this the Public Service is classed in five divisions :—

(i) *The Administrative Division.*—This consists of the secretaries and under-secretaries of the several departments of state ; the chief clerks, principal clerks, senior clerks, provincial secretaries, provincial auditors of accounts and magistrates ; and all other persons whose offices or posts are directed by the Governor-General from time to time to be included in the Administrative Division.

(ii) *The Clerical Division.*—This includes all persons whose offices or posts are directed by the Governor-General to be included in the Clerical Division.

(iii) *The Professional Division.*—This division consists of a higher and a lower branch, and includes all persons whose offices or posts are directed by the Governor-General to be included in the division, and such persons shall be in the higher or lower branch, as may be directed by the Governor-General.

(iv) *The General Division.*—This includes all persons whose offices or posts the Governor-General directs to be included in the General Division.

(v) *The Services.*—These include the permanent Defence Force, the Police Force and subordinate officers of the Prisons Department.

The following are not included in the Public Service :—

Ministers ; the Administrator of a Province or of a mandated territory ; the High Commissioner for the Union in the United Kingdom ; the Chief Justice of South Africa or any Judge of the Supreme Court, a private secretary to a Minister, a clerk to the Chief Justice or to a Judge of the Supreme Court and an itinerant water-court judge if, at the date of appointment as such private secretary, clerk, or water-court judge, he was not an officer of the Public Service ; officers of Parliament ; the personal staff of His Excellency the Governor-General ; any member of the Commission ; any person employed in the Railway Administration ; any person employed by the Government or by any Provincial Administration or by the administration of the mandated territory, whose whole time is not at the disposal thereof or any person remunerated by fees only ; any person so employed if by the terms of his appointment made in accordance with law he is not subject to the laws regulating the Public Service ; any teacher serving under any Provincial Administration or under the administration of the mandated territory, persons temporarily employed under section 16 of the Act, or any person in the employment of the Government of the Union or of the Administration of the provinces or of the mandated territory, not being a member of the services, whose post is not included by the Act or by direction of the Governor-General in the administrative or clerical or professional or general division.

Regulations in connection with the classification of posts undertaken in terms of the new Act were contained in Government Notices issued in September, 1923. Revised scales of salaries, wages, and allowances under the Act were published in October, 1923. The following are the scales of pay fixed for certain posts in the administrative, clerical, and professional divisions which are common to all or several departments :—

PUBLIC SERVICE—SCALES OF PAY FIXED IN TERMS OF ACT NO. 27 OF 1923.

Division.	Post.	Grade.	Scale.		
			Minimum.	Increment.	Maximum.
			£	£	£
Administrative.....	Secretary.....	First.....	1,400	40	1,600
,, ...	,, ...	Second.....	1,300	30	1,450
,, ...	Under-Secretary.....	First.....	1,050	30	1,200
,, ...	,, ...	Second.....	950	30	1,100
,, ...	Chief Clerk.....	First.....	750	25	850
,, ...	,, ...	Second.....	650	25	750
,, ...	Principal Clerk.....	First.....	600	25	650
,, ...	,, ...	Second.....	550	25	600
,, ...	Senior Clerk.....	—	475	25	550
Clerical.....	Clerical Assistant.....	First.....	370	20	450
,, ...	,, ...	Second.....	140	15	200
,, ...	,, ...			20	360
,, ...	Woman Clerk.....	Special.....	270	15	330
,, ...	,, ...	First.....	180	15	255
,, ...	,, ...	Second.....	120	12	168
,, ...	Woman Shorthand-typiste.	First.....	180	15	255
,, ...	,, ,, ..	Second.....	120	12	168
,, ...	Woman Typiste.....	First.....	160	12	220
,, ...	,, ...	Second.....	110	10	150
,, ...	Clerk Stenographer.....	—	360	20	450
Professional.....	Professional, Scientific, and Technical Assistant (graduate)	—	270–290–340–360–30–600		
,, ...	Qualified Technical Assistant (non-graduate)	—	270–20–350–30–500		

7. Public Service Commission.—Section 142 of the *South Africa Act* required the appointment of a permanent Public Service Commission. Section 2 of the *Public Service and Pensions Act*, No. 27 of 1923, made provision in conformity with such requirement. The Commission appointed consists of three members.

8. **Powers and Duties of Public Service Commission.**—The Commission has certain powers conferred and duties imposed upon it by the Act, relating to the appointment, promotion, discipline, retirement, and superannuation of persons employed in the Public Service, and is required *inter alia* :—

(i) To make recommendations as to appointments and promotions.

(ii) To keep a record of persons employed in the Administrative, Clerical, and Professional divisions and in prescribed posts in the general division.

(iii) To make recommendations as to the grading and classification or regrading and conversion of posts in the administrative, clerical, professional, and general divisions.

(iv) To make recommendations as to the control, reorganization and readjustment of any departments or offices in the Public Service and, further, to make recommendations as to the retirement from the Public Service of any persons in consequence of any such reorganization or readjustment.

(v) To make recommendations as to the retirement of officers in the administrative, clerical, and professional divisions and in prescribed posts in the general division on the ground of superannuation, continued ill-health, or inefficiency.

(vi) To make recommendations for effecting economies and promoting efficiency in the management and working of departments, sub-departments, and other offices of the Public Service.

(vii) To inquire into the grievances of officers.

(viii) To make recommendations as to the provisions of the regulations to be made under the Act.

(ix) To frame for the information of Parliament an annual report and such special reports as the Commission considers desirable.

(x) To inquire into and recommend action in cases of imputed misconduct of a serious character.

(xi) To exercise such other powers and jurisdiction and perform such other duties not repugnant to the Act as may be assigned to it by the Governor-General.

Under the Public Service Regulations the administration of the following regulations is vested in the Public Service Commission :—

(i) Subsistence and Transport Allowances Regulations.

(ii) Leave Regulations (by authority delegated to the Commission by the Minister of Finance).

(iii) Regulations governing payment of extra remuneration and payment in respect of overtime.

In terms of the Financial Regulations, framed under section 61 of the *Exchequer and Audit Act*, 1911, the authority of the Commission is required for the expenditure involved in—

(i) the appointment of permanent and temporary officials, except when the appointment is to certain specified posts in the lower grades ;

(ii) the creation of any new post not provided for in the estimates of expenditure approved by Parliament ;

(iii) the alteration of the scale of salary attached to any existing appointment by raising the minimum or maximum of the scale or the rate of annual increment ;

(iv) the payment of any gratuity or extra remuneration to any public servant, except when the payment is specifically provided for by regulation.

9. **Public Service Commission of Inquiry.**—A special Commission to inquire into the organization of the Public Service was appointed on the 12th June, 1918, of which the Hon. T. L. Graham. Judge President of the Eastern Districts Court, was chairman. The Commission sat until November, 1920, and presented altogether five reports.

A summary of these reports, together with the recommendations as to salary (Fifth Report), appeared in previous issues of this *Year Book* (Nos. 5 and 6).

10. **Public Service Advisory Council.**—In terms of Act No. 27 of 1923, regulations in connection with a Public Service Advisory Council were issued under Government Notice No. 1513 of 5th September, 1923. The Council consists of not more than eight members nominated annually by the various Public Service Associations from amongst their members and acts in an advisory capacity to the Public Service Commission, when so requested by that body. Its functions include advising upon the following matters :—

(i) The best means of utilizing the ideas and experience of the staff.

(ii) The general principles governing conditions of service, recruitment, hours, promotion, advancement, discipline, tenure, remuneration, and superannuation.

(iii) The means for encouraging the further training and education of public servants, also their training in higher administration and organization.

(iv) The introduction of improvements in office machinery and organization, and the provision of opportunities for the full consideration of suggestions by the staff on this subject.

(v) Legislation so far as it has a bearing upon the position of public servants in relation to their employment.

(vi) Any matter referred to it by the Commission.

In addition, rules were prescribed for the recognition of associations and for the government and the conduct of the business of the Council.

The first Public Service Advisory Council was established in December, 1923.

11. **Strength of Staff in Government Service.**—The following tables give particulars of the permanent and temporary staff employed in the various Departments of the Union Public Service for a period of years. Particulars of the staffs of the various Provincial Administrations will be found below in § 5 of this chapter, and of the staff of the Railways and Harbours Administration in Chapter XX.

The authorized European establishment of the Union Public Service, as shown in the Estimates presented each year to Parliament, was:—1912–13, 20,859; 1913–14, 21,412; 1914–15, 22,739; 1915–16, 19,700; 1916–17, 20,878; 1917–18, 20,796; 1918–19, 20,832; 1919–20, 25,005 (including 3,695 in respect of Defence Department, for which no figures had been given since 1914–15); 1920–21, 28,234 (including uniformed staff and Post Office learners); 1921–22, 28,772; 1922–23, 27,149; 1923–24, 26,392; 1924–25, 26,637; 1925–26, 27,071.

(i) STAFF EMPLOYED IN THE UNION GOVERNMENT SERVICE, 1921–22 TO 1923–24.

Department.	1921–22.			1922–23.			1923–24.		
	Permanent.	Temporary.	Total.	Permanent.	Temporary.	Total.	Permanent.	Temporary.	Total.
Agriculture	1,452	241	1,693	901	629†	1,530	907	608	1,515
Agriculture (Education)	164	29	193	135	63	198	146	41	187
Audit	134	23	157	140	13	153	147	3	150
Customs and Excise	497	38	535	521	42	563	529	44	573
Defence*	139	205	344	139	178	317	135	21	156
Finance	153	112	265	139	90	229	133	66	199
Forests	259	22	281	266	20	286	272	21	293
Governor-General	17	—	17	17	—	17	18	—	18
House of Assembly	40	28	68	40	28	68	40	32	72
Inland Revenue	264	80	344	327	66	393	342	45	387
Interior	2,210	370	2,580	2,331	177	2,508	2,441	194	2,635
Irrigation	108	36	144	98	30	128	129	47	176
Justice	1,586	230	1,816	1,529	193	1,722	1,622	257	1,879
Lands	379	108	487	377	57	434	402	42	444
Mines	373	121	494	361	67	428	388	46	434
Native Affairs	1,351	70	1,421	1,334	58	1,392	1,273	50	1,323
Police—									
A. and C. Staff	134	—	134	130	—	130	133	—	133
Executive	9,829	14	9,843	9,825	12	9,837	10,178	9	10,187
Posts and Telegraphs	8,059	2,883	10,942	7,674	3,126	10,800	7,773	2,996	10,769
Prime Minister	13	2	15	13	5	18	14	4	18
Prisons	2,625	5	2,630	2,644	3	2,647	2,698	1	2,699
Public Health	182	37	219	177	35	212	177	23	200
Public Service Commission	—	—	—	—	—	—	44	4	48
Public Works	205	505	710	198	507	705	203	495	698
Senate	9	2	11	9	1	10	9	—	9
Union Education	138	1	139	158	4	162	176	8	184
High Commissioner's Office, London	89	100	189	86	68	154	112	7	119
TOTAL	30,409	5,262	35,671	29,569	5,472	35,041	30,441	5,064	35,505

* Excludes Executive Staff: 1921–22, 2,304; 1922–23, 2,398; 1923–24, 2,481.

† Includes 197 Dipping Inspectors and 209 Native Guards previously shown as permanent.

ii) STAFF EMPLOYED IN THE UNION GOVERNMENT SERVICE ACCORDING TO RACE AND SEX, 1923-24.

Department.	European.		Non-European.		Total.
	Male.	Female.	Male.	Female.	
Agriculture	1,238	82	195	—	1,515
Agriculture (Education)	166	21	—	—	187
Audit	129	21	—	—	150
Customs and Excise	486	40	47	—	573
Defence*	1,994	70	573	—	2,637
Finance	124	66	9	—	199
Forests	228	18	47	—	293
Governor-General	15	2	1	—	18
House of Assembly	71	—	1	—	72
Inland Revenue	241	143	3	—	387
Interior	980	771	665	219	2,635
Irrigation	140	29	7	—	176
Justice	1,452	203	224	—	1,879
Lands	347	88	9	—	444
Mines	323	81	30	—	434
Native Affairs	420	33	866	4	1,323
Police	6,448	21	3,851	—	10,320
Posts and Telegraphs	8,132	1,626	1,011	—	10,769
Prime Minister	13	5	—	—	18
Prisons	1,641	270	785	3	2,699
Public Health	105	23	62	10	200
Public Service Commission	40	8	—	—	48
Public Works	345	49	304	—	698
Senate	9	—	—	—	9
Union Education	73	82	26	3	184
High Commissioner's Office, London	67	52	—	—	119
TOTALS	25,227	3,804	8,716	239	37,986

* Including executive staff.

§ 4. Parliament and Legislation.

[For list of Members, see Chapter XXVIII.]

1. **Parliament.**—The legislative power of the Union is vested in terms of section 19 of the *South Africa Act* (see § 1 of this Chapter) in the King, represented by the Governor-General, a Senate, and a House of Assembly. Sessions of Parliament (section 20 of the *South Africa Act*) may be appointed by the Governor-General, who may also prorogue Parliament, or may dissolve the Senate * and House of Assembly simultaneously, or the House of Assembly alone. No dissolution of the Senate (see paragraph 3 below) can affect those Senators who have been nominated by the Governor-General-in-Council.† Cape Town is constituted as the seat of the Legislature (section 23 of the *South Africa Act*). The powers of Parliament are described in sections 59 to 67 of the Act. Parliament has full powers to make laws for the peace, order, and good government of the Union.

2. **Sessions of Parliament.**—A Session of Parliament must be held once at least in every year, so that a period of twelve months shall not intervene between the last sitting of Parliament in one session and its first sitting in the next session. The first Parliament was opened by His Royal Highness the Duke of Connaught and Strathearn on the 4th November, 1910. The following table gives a list of sessions from 1910 to 1924 with the dates of commencement and ending in each case and the duration of each session (Sundays and public holidays included):—

* Under the *South Africa Act* the original Senate held office to 31st May, 1920, and under Act No. 9 of 1920 until 31st October, 1920.

† Act No. 54 of 1926 provides for the retirement of those Senators when the Senate is dissolved, or upon a change of Government.

SESSIONS OF PARLIAMENT.

Number of Parliament and of each Session.	Year.	Commencement and Ending.	Duration (in Days).
First Parliament—			
1st Session	1910–11	31.10.10—25. 4.11	177
2nd Session	1912	26. 1.12—24. 6.12	151
3rd Session	1913	24. 1.13—16. 6.13	144
4th Session	1914	30. 1.14— 7. 7.14	159
5th (Extraordinary) Session	1914	9. 9.14—14. 9.14	6
6th Session	1915	26. 2.15—21. 4.15	55
[*House of Assembly dissolved by Proclamation No. 96 of 1915, dated 23rd August, 1915.*]			
Second Parliament—			
1st Session	1915–16	19.11.15—17. 6.16	212
2nd Session	1917	16. 2.17— 3. 7.17	138
3rd Session	1918	18. 1.18— 8. 5.18	111
Joint Sitting of Both Houses	1918	17. 4.18—24. 4.18	8
4th Session	1919	17. 1.19—20. 6.19	155
5th (Special) Session	1919	5. 9.19—17. 9.19	13
[*House of Assembly dissolved by Proclamation No. 24 of 1920, dated 6th February, 1920.*]			
Third Parliament—			
Session	1920	19. 3.20—17. 8.20	152
[*Senate expired by effluxion of time on 31st October, 1920, under Sections 24 and 25 of the South Africa Act, 1909, and Sections 1 and 2 of the Constitution of the Senate Act, 1920.*			
House of Assembly dissolved by Proclamation No. 225 of 1920, dated 31st December, 1920.]			
Fourth Parliament—			
1st Session	1921	11. 3.21—14. 7.21	126
2nd Session	1922	17. 2.22—19. 7.22	153
3rd Session	1923	19. 1.23—23. 6.23	156
4th Session	1924	25. 1.24—10. 4.24	77
[*House of Assembly dissolved by Proclamation No. 88 of 1924, dated 9th May, 1924.*]			
Fifth Parliament—			
1st Session	1924	25. 7.24— 6. 9.24	44
2nd Session	1925	13. 2.25—25. 7.25	163
Joint Sitting of Both Houses	1925	6. 5.25— 8. 5.25	3
3rd Session	1926	22. 1.26— 8. 6.26	138
Joint Sitting of Both Houses	1926	7. 5.26—12. 5.26	6

3. ***The Senate.**—The second Senate of the Union is composed of eight Senators nominated by the Governor-General-in-Council, four of whom are selected on the ground mainly of their thorough acquaintance, by reason of their official experience or otherwise, with the reasonable wants and wishes of the coloured races, and eight Senators elected by each of the four Provinces of the Union.

The second Senate first met on 11th March, 1921, and unless sooner dissolved, which can happen at any time, provided it is simultaneous with a dissolution of the House of Assembly, is constituted for ten years. The Provincial representatives are elected, according to the system of proportional representation with the single transferable vote, by the Members of the House of Assembly and of the Provincial Council for each Province sitting together and presided over by the Administrator of such Province. Vacancies amongst elected Senators are filled in the same manner, but only for the period which the Senator in whose place the new Senator is elected, would have held his seat; whereas nominated Senators always sit for the full ten-year period, which is not even affected by the dissolution of the Senate or its expiration by the effluxion of time. In addition to having the qualifications required by Members of the House of Assembly, all Senators must be not less than thirty years of age, and, in the case of elected Senators, must own unencumbered, immovable property within the Union of not less value than £500. The Legislative powers of the Senate are co-ordinate with those of the House of Assembly except in regard to the origination and amendment of certain monetary provisions in Bills.

4. **The House of Assembly.**—The House of Assembly is composed of members directly chosen by the voters of the Union in electoral divisions as laid down by the *South Africa Act*. Matters relating to the delimitation of such divisions, the qualifications of voters, and the election of members are dealt with in § 8 of this Chapter. The number of members which was fixed for the first election is given below. The method of the increase of the number of members is dealt with in section 34 of the *South Africa Act*. As the result of the operation of this section, on the issue of the returns for the Census of Population taken in 1911, 1918, and 1921, the number of members in the Transvaal was increased on each occasion.

* See Act No. 54 of 1926, which provides for the dissolution of the Senate and the retirement of nominated Senators.

of members which was fixed for the first election is given below. The method of the increase of the numbers of members is dealt with in section 34 of the *South Africa Act.* As the result of the operation of this section, on the issue of the returns for the Census of Population taken in 1911, 1918, and 1921, the number of members in the Transvaal was increased on each occasion.

The original and the later constitutions of the House are given hereunder :—

Province.	Number of Members in			
	1910–15 (First Parliament).	1915–19 (Second Parliament).	1920–24 (Third and Fourth Parliaments).	1924 (Fifth Parliament).
Cape of Good Hope	51	51	51	51
Natal	17	17	17	17
Transvaal	36	45	49	50
Orange Free State	17	17	17	17
TOTAL	121	130	134	135

The qualifications of a member of the House of Assembly are defined in section 44 of the *South Africa Act.* Every House of Assembly has a duration of five years (but not longer) from the date of its first meeting, unless sooner dissolved by the Governor-General. The first business of the House is the election of one of its members as Speaker, who ceases to be Speaker if he ceases to be a member of the House. A member may resign his seat. The presence of thirty members is necessary to constitute a *quorum.* Each member receives an allowance of £400 * a year, except the Speaker and Ministers receiving salary under the Crown.

5. **Acts of Parliament.**—A synopsis is given hereunder of the various enactments of the Parliament of the Union in the second Session 1924 and the Session of 1925, excluding Appropriation Acts. Similar information in respect of Acts passed during the years 1910 to 1924 (first Session) will be found in previous issues of this *Year Book.*

SYNOPSIS OF ACTS OF PARLIAMENT, SECOND SESSION 1924 AND SESSION 1925.

Year in which Act was passed; Number and Title.	Date of Commencement.	Object and Effect.
1924.		
26. Income Tax	3/9/24	To fix the rates of normal income tax and super tax in respect of the twelve months ended the thirtieth day of June, 1924.
27. Customs and Excise Duties Amendment	6/9/24	To amend further the tariffs of customs and excise in force in the Union, and to amend in other respects the laws relating to customs and excise; and for other matters incidental thereto.
28. Maroka Ward Land Relief	1/3/25	To enable members of the Baralong Tribe to acquire and hold land and interests in land in the Maroka Ward, now known as the district of Thaba 'Nchu in the Province of the Orange Free State.
29. Rents Acts Extension	15/9/24	To extend with retrospective effect the period for which Act No. 13 of 1920, which constituted boards to control, fix, and reduce rents charged for dwellings and for other purposes incidental thereto, together with the Acts extending and amending that Act, shall be in operation.

* This amount was increased to £700 a year by Act No. 51 of 1926.

SYNOPSIS OF ACTS OF PARLIAMENT, SECOND SESSION 1924 AND SESSION 1925—*continued.*

Year in which Act was passed; Number and Title.	Date of Commencement.	Object and Effect.
1924—(*contd.*).		
30. South-West Africa—Naturalization of Aliens	15/9/24	To provide for the naturalization of aliens in the mandated territory of South West Africa and other matters incidental thereto.
31. Zululand Railway Construction	15/9/24	To provide for the construction and equipment of a line of railway from Matubatuba to the south bank of the Pongola River in Zululand; and for the purposes thereof to confer upon the Governor-General certain powers incidental thereto.
32. Land Banks Acts, Further Amendment	10/9/24	To amend further the laws relating to the Land and Agricultural Bank of South Africa.
33. Board of Trade and Industries	10/9/24	To provide for the establishment of a Board of Trade and Industries in lieu of the Board mentioned in Act No. 28 of 1923, and to define its functions and duties, and to amend Act No. 28 of 1923.
34. Electricity Act Amendment	10/9/24	To amend section 6 of the Electricity Act, 1922 (Act No. 42 of 1922).
35. Miners' Phthisis Act Amendment	1/8/24	To amend the Miners' Phthisis Act, 1919 (Act No. 40 of 1919), and to make special provision in the case of miners who volunteered for active service and who failed to obtain benefits in respect of a disablement either under the War Special Pensions Act, 1919 (Act No. 42 of 1919), or the Miners' Phthisis Act, 1919 (Act No. 40 of 1919).
36. Financial Adjustments	10/9/24	To make special provision for certain financial matters and in respect of matters involving charges upon, or expenditure of, public revenues of the Union, and to amend or interpret certain statutes relating to pensions.
37. Pensions (Supplementary)	10/9/24	To provide for certain pensions, grants, gratuities, and other pensionable benefits.
38. Land Settlement Acts, Further Amendment	10/9/24	To amend further the laws relating to land settlement.
1925.		
5. Housing Act, 1920, Amendment	2/5/25	To amend definition of dwelling in section 1 of Act No. 35 of 1920.
6. Wild Birds Export Prohibition	2/5/25	To prohibit the exportation of wild birds.

SYNOPSIS OF ACTS OF PARLIAMENT, SECOND SESSION 1924 AND SESSION 1925—*continued.*

Year in which Act was passed; Number and Title.	Date of Commencement.	Object and Effect.
1925—(*contd.*).		
7. Union and Rhodesia Customs Agreement	2/5/25	To provide for the ratification of the Customs Agreement entered into between the Government of the Union of South Africa and the Governments of Southern and Northern Rhodesia respectively, and to authorize the Governor-General to issue a proclamation and regulations for giving effect to that agreement, and generally to provide for other matters incidental thereto.
8. Official Languages of the Union	31/5/10	To recognize Afrikaans as one of the official languages of the Union.
9. South Africa Act, 1909, Amendment	27/5/25	To acknowledge the sovereignty and guidance of Almighty God.
10. South African Museum Act, 1857 (Cape), Amendment.	27/5/25	To amend Act No. 17 of 1857 (Cape).
11. South African Association Incorporation Act, 1906 (Cape), Amendment (Private)	27/5/25	To amend the South African Association Incorporation Act, 1906 (Cape).
12. Fruit Export Control	27/5/25	To provide for the control of the export of fruit from the Union and of the shipment of fruit at Union ports.
13. Orchard Cleansing...	27/5/25	To provide for the cleansing of orchards in respect of insect pests and plant diseases.
14. Ebenezer (Van Rhynsdorp) Exchange of Land	11/6/26	To provide for the exchange of certain lands in the Division of Van Rhynsdorp, Province of the Cape of Good Hope, and matters incidental thereto.
15. Sundays River Settlements Administration	16/7/25	To declare certain non-riparian land in the Division of Uitenhage to be riparian to the Sundays River and certain land riparian to the Sundays River to be non-riparian, and to alter the boundaries of the Sundays River Irrigation District, and further to grant such powers as are necessary for the carrying out of the obligations assumed by the Government on the purchase of the assets of the Cape Sundays River Settlements, Limited, and for the administration of the said assets.
16. Agricultural Industries Advancement	16/7/25	To make provision for levies on particular agricultural products in certain circumstances for the promotion of agriculture; for the creation of special accounts into which those levies shall be paid; for the application of moneys paid into such accounts; for the protection of standards prescribed for agricultural products; and to amend further the Agricultural Produce Export Act, 1917, and for other purposes incident to inspection and grading of such products.

SYNOPSIS OF ACTS OF PARLIAMENT, SECOND SESSION 1924 AND SESSION 1925—*continued.*

Year in which Act was passed; Number and Title.	Date of Commencement.	Object and Effect.
1925—(*contd.*).		
17. City of Cape Town (Muizenburg Beach), Improvement	16/7/25	To vest certain lands adjoining False Bay in the Council of the City of Cape Town.
18. Diseases of Stock, 1911, Further Amendment	16/7/25	To amend the Diseases of Stock Act, 1911, and to validate certain orders issued under section 16 thereof.
21. Settlements (Committee of Management)	27/7/25	To provide for the establishment of committees of management settlements laid out on Crown land and matters incidental thereto.
22. Public Auctions and Transactions in live stock and produce	27/7/25	To regulate certain transactions in, and the sale by auction of, live stock and agricultural produce.
23. Railways and Harbours Service	1/9/25	To consolidate and amend the laws relating to the organization of, and discipline and conditions of, employment in the Department of Railways and Harbours of the Union.
24. Railways and Harbours Superannuation Fund	1/9/25	To make further provision as to retiring pensions or other financial benefits payable to servants in the Department of Railways and Harbours of the Union and to amend certain laws relating thereto.
25. Government Attorney	21/8/25	To provide for the establishment of the office of Government Attorney for the Union and for other matters incidental thereto.
26. Land Settlement Laws Further Amendment	30/7/25	To amend the laws relating to Land Settlement.
27. Wage.....	12/2/26	To provide for the determination of conditions of labour and of wages and other payments for labour, the appointment of a wage board, and investigations as to wages and conditions of labour.
28. Native Lands (Natal and Transvaal) Release	30/7/25	To empower the Government and certain native trusts to give effect to certain transactions.
31. Death Duties Act, 1922, Amendment	1/7/25	To amend the Death Duties Act, 1922.
32. Licences Consolidation	1/1/26	To provide for the licensing of trades, professions, and occupations within the Union, and to fix the licence duties payable.
33. Railways Construction	5/8/25	To provide for the construction and equipment of certain lines of railway for the validation of certain acts done, works performed, and rights acquired; for power to close a certain portion of a line of railway; and certain matters incidental thereto.

SYNOPSIS OF ACTS OF PARLIAMENT, SECOND SESSION 1924 AND SESSION 1925—*continued.*

Year in which Act was passed; Number and Title.	Date of Commencement.	Object and Effect.
1925—(*contd.*).		
34. South Africa Act, 1909, Further Amendment	5/8/25	To provide for the appointment of an eleventh Minister.
35. Miners' Phthisis Acts, Consolidation	1/8/25	To consolidate and amend the laws relating to miners phthisis.
36. Customs Tariff and Excise Duties Amendment	30/7/25	To provide for the imposition of duties of customs upon goods imported into the Union; to amend the tariff of excise in force in the Union; to validate the action of the Government in suspending the collection of certain customs and excise duties; to amend the laws relating to customs; and for other matters incidental thereto.
37. New Cape Central Railway Acquisition	5/8/25	To confirm a certain agreement between the Railways and Harbours Administration of the Union and the New Cape Central Railway Company, Limited, and to provide for other matters incidental thereto.
38. Co-operative Societies Act, 1922, Amendment	30/7/25	To amend the Co-operative Societies Act, 1922 (Act No. 28 of 1922).
39. Diamond Control....	29/8/25	To provide for the control of the sale and export of diamonds, and for the establishment of a diamond control board in the Union.
40. Income Tax.....	29/6/25	To provide for the taxations of incomes and to consolidate and amend the law relating thereto.
41. Natives Taxation and Development	1/1/26	To consolidate and amend the law relating to the taxation of natives and to provide additional funds for the development, education, and local government of natives.
42. South West Africa Constitution	5/8/25	To make provision for the constitution of an Executive Committee, an Advisory Council, and a Legislative Assembly for the mandated territory of South West Africa, to define the powers, authorities, and functions severally of that committee, council, and assembly; and to make other provisions in respect of the administration of, and legislation for, that territory.
43. Financial Adjustments	5/8/25	To make special provision for certain financial matters affecting the Consolidated Revenue Fund and the Railway and Harbour Fund; for the administration of certain educational institutions and funds; for the disposal of the surplus funds and the transfer of the assets, liabilities, powers, and duties of the Custodian of Enemy Property; to amend certain statutes relating to pensions and other matters; and to amend the law relating to the Land and Agricultural Bank of South Africa.

SYNOPSIS OF ACTS OF PARLIAMENT, SECOND SESSION 1924 AND SESSION 1925—*continued.*

Year in which Act was passed; Number and Title.	Date of Commencement.	Object and Effect.
1925—(*contd.*).		
44. Pensions Supplementary	5/8/25	To provide for certain pensions grants, gratuities, and other pensionable benefits, and to amend certain laws relating thereto.
45. Merchant Shipping (Certificates of Competency)	—	To make further provision for the granting of certificates of competency or service to persons employed as masters, mates, engineers, and in certain other capacities upon certain vessels; for the suspension and cancellation of such certificates; and for other matters incidental thereto.
46. Provincial Subsidies and Taxation Powers (Amendment)	1/4/25	To amend the laws regulating the financial relations between the Union and the several Provinces thereof; to modify the provisions of section *eighty-five* of the South Africa Act, 1909, in certain respects; and to declare the sources and matters from which the Provinces may raise revenue by way of taxation and the legislative powers of the Provincial Councils in respect thereof.

6. **Subjects of Legislation by Parliament.**—The subjoined table gives a synopsis of the enactments of the Union Parliament from its first session (1910), arranged according to the subject dealt with. Appropriation Acts and Acts which have been repealed or are of no further effect have been omitted.

SYNOPSIS OF LEGISLATION, FROM 1910, CLASSIFIED ACCORDING TO SUBJECTS.

Subject.	No. of Act.	Year.
A.—GOVERNMENT.		
(a) *Parliament.*		
Powers and Privileges of Parliament	19	1911
Private Bills Procedure	20	1912
Payment of Members	21	1916
Treaty of Peace and South-West Africa Mandate	49	1919
Constitution of the Senate	9	1920
South West Africa Affairs	24	1922
South Africa Act, 1909, Amendment	9	1925
South Africa Act, 1909, Further Amendment	34	1925
South West Africa Constitution	42	1925
(b) *Administration.*		
Crown Liabilities	1	1910
High Commissioner (London)	3	1911
Post Office Management	10	1911
„ (Amendment)	47	1920
Customs Management	9	1913
„ (Amendment)	27	1919
Public Debt Commissioners	18	1911
Public Service and Pensions	29	1912
„ „ „ „	39	1914
„ „ „ „	27	1923
„ „ Commissioners	15	1916
„ „ „	14	1918
A.—GOVERNMENT—*contd.*		
(b) *Administration.*—contd.		
Public Servants (Military Service)	25	1919
Fiscal Divisions—Maclear and Elliot	12	1913
„ „ Oudtshoorn, Ladismith, and Calitzdorp	26	1913
Official Languages of the Union	8	1925
(c) *Statistics.*		
Census	2	1910
„	15	1918
Statistics	38	1914
„ (Amendment)	5	1919
B.—THE PEOPLE.		
(a) *Status.*		
Marriage Laws	20	1913
Marriage Law Amendment	17	1921
Marriage Officers	43	1916
Marriage Registers and Certificates	4	1919
Births, Marriages, and Deaths Registration	17	1923

SYNOPSIS OF LEGISLATION FROM 1910, CLASSIFIED ACCORDING TO SUBJECTS—*continued.*

Subject.	No. of Act.	Year.
B.—THE PEOPLE—*contd.*		
(a) *Status.*—contd.		
Immigrants, Regulation of.....	22	1913
Indians, Relief of.....	22	1914
Undesirables, Deportation of..	1	1914
Insolvency.....	32	1916
Disabilities(War and Rebellion)	10	1915
Electoral Laws.....	12	1918
Electoral Divisions Redelimitation.....	31	1918
Asiatics [Land and Trading (Amendment)].....	37	1919
Indian Immigration Trust Board Transfer.....	43	1920
Asiatic (Cape Malay) Amendment.....	12	1924
Native Registered Voters' Relief Act (Amendment)....	24	1920
Natal and Transvaal Marriage Law Amendment	11	1920
South West Africa Naturalization of Aliens.....	30	1924
(b) *Health.*		
Medical Practitioners and Dentists Registration (Amendment).....	21	1919
Public Health.....	36	1919
Lunacy and Leprosy.....	14	1914
Mental Disorders.....	38	1916
Miners' Phthisis.....	40	1919
Miners' Phthisis Act Amendment.....	35	1924
Miners' Phthisis Act Consolidation.....	35	1925
(c) *Education.*		
Gill College.....	6	1912
University of South Africa....	12	1916
" Stellenbosch....	13	1916
" Cape Town....	14	1916
University of the Witwatersrand, Johannesburg(Private)	15	1921
Higher Education.....	20	1917
Anatomy.....	32	1911
Universities' Acts Amendment	9	1918
" " "	42	1920
Huguenot College Act, 1907 (Cape), Amendment.....	26	1920
Matriculation Exemption.....	30	1920
University of Cape Town (Medical School).....	33	1920
Zuidafrikaanse Akademie voor Taal, Letteren en Kunst (Private).....	23	1921
Potchefstroom University College (Private).....	25	1921
Higher Education.....	30	1923
Rhodes University College Act 1904 (Cape) Amendment (Private).....	19	1924
(d) *Labour, Wages, etc.*		
Native Labour.....	15	1911
Railways and Harbours' Strike	7	1914
Workmen's Wages, Protection of.....	15	1914
Workmen's Compensation.....	25	1914
" " (Industrial Diseases)	13	1917
Miners' Phthisis.....	40	1919
Public Holidays.....	3	1910
Commission's (Cost of Living) Powers.....	6	1918
Factories.....	28	1918
Industrial Conciliation.....	11	1924
Wages.....	29	1918
Tenants' Protection (Temporary).....	7	1920
Rents.....	13	1920

Subject.	No. of Act.	Year.
B.—THE PEOPLE—*contd.*		
(d) *Labour, Wages, etc.*—contd.		
Rents Act Extension and Amendment.....	30	1921
Rents Acts Extension and Further Amendment.....	10	1922
Rents Act Extension.....	20	1923
Apprenticeship.....	26	1922
" Amendment..	15	1924
Rents Act Extension.....	29	1924
Wage.....	27	1925
(e) *Social Condition.*		
Children, Protection of.....	25	1913
Children's Protection Act, Amendment.....	26	1921
Adoption of Children.....	25	1923
Girls, Protection of.....	3	1916
Corruption, Prevention of....	4	1918
Housing.....	35	1920
Juveniles Act.....	33	1921
Cruelty to Animals, Prevention of.....	8	1914
Prevention of Cruelty to Animals Act, 1914, Amendment.....	14	1922
Housing Act, 1920, Amendment.....	5	1925
(f) *Natives.*		
Native Labour.....	15	1911
Natal Native Trusts.....	1	1912
Natal Native High Court....	9	1921
Natal Poll Tax, Suspension of.	30	1914
Native Lands.....	27	1913
Native, Definition of (Cape)...	1	1916
Native Reserve Locations Acts (Cape of Good Hope), Further Amendment.....	48	1919
Native Affairs.....	23	1920
Natives Advances Regulation.	18	1921
Native Registered Voters' Relief Act, 1887 (Cape), Amendment.....	24	1920
Native (Urban Areas).....	21	1923
Native Chiefs' Jurisdiction (Transvaal and British Bechuanaland).....	7	1924
Native Lands (Natal and Transvaal) Release.....	28	1925
Natives' Taxation and Development.....	41	1925
C.—PUBLIC JUSTICE.		
(a) *Courts.*		
Appellate Court, Jurisdiction of	1	1911
Judges' Salaries and Pensions	16	1912
Cape Superior Courts.....	10	1917
Magistrates' Courts.....	32	1917
Magistrates' Courts Act(Amendment).....	13	1921
Magistrates' Courts Act, 1917, Further Amendment.....	9	1923
Appellate Division.....	12	1920
Natal Native High Court Act	9	1921
Water Court Judge.....	2	1924
(b) *Administration.*		
Justice, Administration of....	27	1912
Justice, Administration of (O.F.S.), Amendment.....	11	1921
Justices of the Peace and Commissioners of Oaths.....	12	1914
Justices of the Peace, Special	2	1918

SYNOPSIS OF LEGISLATION FROM 1910, CLASSIFIED ACCORDING TO SUBJECTS—*continued.*

Subject.	No. of Act.	Year
C,—PUBLIC JUSTICE—*contd.*		
(c) *Law.*		
Admission of Advocates	19	1921
Women Legal Practitioners	7	1923
Legal Procedure (Rebellion)	24	1916
Criminal Procedure and Evidence	31	1917
Law Society (Cape)	20	1916
Insolvency	32	1916
Indemnity and Special Tribunals	11	1915
Indemnity and Trial of Offenders	6	1922
Interpretation of Language of Statutes	5	1910
Natal and Transvaal Marriage Law Amendment	11	1920
Wills Ordinance, 1903 (Transvaal), Amendment	14	1920
Prescription (Transvaal)	9	1914
Maintenance Orders	15	1923
Government Attorney	25	1925
(d) *Suppression and Prevention of Crime.*		
Prisons and Reformatories	13	1911
" " (Amendment)	46	1920
Prisons and Reformatories Act Further Amendment	8	1924
Police	14	1912
Criminal Procedure and Evidence	31	1917
Undesirables, Deportation of	22	1913
" " "	1	1914
Riotous Assemblies	27	1914
Protection of Children	25	1913
Children's Protection Act, Amendment	26	1921
Protection of Girls	3	1916
Fugitive Offenders (Occupied Territories)	3	1918
Corruption, Prevention of	4	1918
Inquests	12	1919
Transvaal Liquor Licensing Ordinance, 1902 (Amendment)	33	1919
" " "	20	1921
Stock Theft	26	1923
D.—DEFENCE AND SPECIAL WAR MEASURES.		
Defence	13	1912
Public Welfare and Moratorium	1	1914 (Sp. Session)
" " " (Amendment)	37	1917
" " "	47	1919
Disabilities (War and Rebellion)	10	1915
Amnesty	46	1919
Indemnity and Special Tribunals	11	1915
War Stores, Commission on	19	1915
Persons on Active Service, Relief of	26	1915
War Special Pensions	43	1917
" " "	25	1918
" " "	42	1919
" " " (Amendment)	41	1920
Legal Procedure (Rebellion)	24	1916
Trading with the Enemy	39	1916
Public Servants (Military Service)	25	1919
Treaties of Peace	32	1921
South Africa Defence Act Amendment	22	1922
Defence Endowment Property and Account	33	1922
E.—LAND AND PROPERTY.		
(a) *Lands.*		
Crown Lands and Settlement	2	1911
" " "	12	1912
" " "	23	1917
" " " (Amendment)	28	1920
Land Settlement Acts Further Amendment	21	1922
Crown Land Disposal (Cape of Good Hope) Amendment	6	1919
" " "	8	1922
Transvaal and Orange Free State Lands (Settlement)	15	1912
" " "	16	1916
Land Surveyors, Recognition of	25	1917
Native Lands	27	1913
Asiatics (Land and Trading) Amendment (Transvaal)	37	1919
Land Bank	18	1912
" "	30	1916
Land Bank Act Further Amendment	36	1921
" " "	40	1922
Commonage, Carnarvon	19	1913
" North Barrow and Weenen	29	1913
Mapochs Gronden	40	1916
Mapochs Gronden Water and Commonage Act Amendment	14	1923
Riparian Land (Erven and Commonages)	11	1919
Commonages (Cape of Good Hope)	17	1919
Carnarvon Outer Commonage Settlement Act Amendment	16	1920
Deeds Registries	13	1918
Deeds Registries Amendment	15	1922
Bethelsdorp Settlement	34	1921
Frankenwald Estate Transfer	7	1922
Land Settlement Act Further Amendment	38	1924
Moroka Ward Land Relief	28	1924
Ebenezer (Van Rhynsdorp) Exchange of Land	14	1925
Sundays River Settlements Administration	15	1925
City of Cape Town (Muizenberg Beach) Improvement	17	1925
Settlements (Committee of Management)	21	1925
Land Settlements Law Further Amendment	26	1925
Native Lands (Natal and Transvaal) Release	28	1925
(b) *Property.*		
Administration of Estates	24	1913
Transfer Duty, Reduction of	11	1913
Transvaal Transfer Duty Amendment	28	1919
Removal of Restrictions on Immovable Property	2	1916
" " " Amendment	20	1924
Titles Amendment (Gubenxa and Embokotwa)	1	1917
Rhodes' Will (Groote Schuur)	9	1910
Insolvency	32	1916
(c) *Irrigation and Water Conservation.*		
Irrigation	8	1912
"	26	1916
Oliphants River Irrigation Scheme	28	1917
Crocodile River Irrigation Scheme	32	1914
Loans for Irrigation	18	1917

SYNOPSIS OF LEGISLATION FROM 1910, CLASSIFIED ACCORDING TO SUBJECTS—*continued.*

Subject.	No. of Act.	Year.
E.—LAND AND PROPERTY—*contd.*		
(c) *Irrigation, etc.*—contd.		
Hartebeestpoort Irrigation Scheme	23	1918
Bedford Additional Water Supply	13	1919
Rand Water Board Statutes, 1903–14, Amendment (Private)	10	1920
Rand Water Board Statutes, 1903–20, Amendment (Private)	10	1921
Rand Water Board Statutes, 1903–21 Amendment	18	1923
Cape Town Water Supply (Steenbras) Land	17	1920
Durban Water Works Consolidation (Private) Act	24	1921
Water Court Judge	2	1924
F.—INDUSTRIES.		
(a) *Agriculture.*		
Fencing	17	1912
Fencing Act Amendment	11	1922
Fertilizers, Farm Foods, Seeds, and Pest Remedies	21	1917
Agricultural Pests	11	1911
Agricultural Pests Act Amendment	12	1922
Land Bank	18	1912
" "	30	1916
Land Bank Act Further Amendment	36	1921
Fruit, Export of	17	1914
Agricultural Produce, Export of	35	1917
Wine, Spirits, and Vinegar	15	1913
Sale of Agricultural Produce on Mines	19	1917
Forests	16	1913
" Demarcation of	14	1917
Dairy Industry	16	1918
Factories	28	1918
Agricultural Pests (Citrus Canker)	10	1919
Agricultural Pests Act Further Amendment	6	1924
Agricultural Holdings (Transvaal) Registration	22	1919
Co-operative Societies, Transvaal and Orange Free State	21	1914
" " "	17	1917
Co-operative " Agricultural Societies Acts Amendment	29	1919
Restriction on the Importation of Wine and Spirits	14	1921
Wine and Spirits Control	5	1924
Agricultural Products Grading	16	1922
Angora Goat Export Prohibition (Repealing)	17	1922
Co-operative Societies	28	1922
Fruit Export Control	12	1925
Orchard Cleansing	13	1925
Agricultural Industries Advancement	16	1925
Co-operative Societies Act, 1922, Amendment	38	1925
(b) *Stock.*		
Diseases of Stock	14	1911
" "	25	1916
Diseases of Stock Act Amendment	31	1923
Cattle Cleansing (Cape)	11	1910
Dipping of Stock	20	1911
" "	14	1913
" "	17	1915
F.—INDUSTRIES—*contd.*		
(b) *Stock*—contd.		
Land Bank	18	1912
" "	30	1916
Land Bank Act Further Amendment	36	1921
" " "	40	1922
Registration of Pedigree Live Stock	22	1920
Stock Theft	26	1923
Diseases of Stock, 1911, Further Amendment	18	1925
(c) *Mines and Minerals.*		
Mines and Machinery	12	1911
Precious and Base Metals (Transvaal)	18	1913
Precious Stones (Alluvial) Amendment	15	1919
Diamonds, Export of	36	1916
" "	27	1917
" " (Amendment)	34	1919
Diamond Cutting	38	1919
Miners' Phthisis	50	1919
Explosives	8	1911
Transvaal Mining Leases	30	1918
Rand Mines Power Supply Company Water Supply	14	1919
South African Alkali and Lichtenburg Salt Pan Leases	25	1922
Coal	27	1922
Iron and Steel Industry Encouragement	41	1922
Miners' Phthisis Act Amendment	35	1924
Miners' Phthisis Acts Consolidation	35	1925
Diamond Control	39	1925
(d) *General.*		
Industrial Conciliation	11	1924
Apprenticeship	26	1922
Apprenticeship Act, 1922, Amendment	15	1924
G.—COMMERCE AND TRADE.		
Board of Trade and Industries	28	1923
Customs Management	9	1913
" " (Amendment).	27	1919
Customs and Excise	16	1911
" "	7	1913
" "	37	1913
" "	13	1914
" "	26	1914
" "	22	1915
" "	37	1916
" "	36	1917
" "	20	1918
" "	32	1919
Customs and Excise Duties, Amendment	35	1921
" " "	35	1922
" " "	23	1923
" " "	27	1924
Customs Duties (Suspension)	8	1920
Public Welfare and Moratorium	1	1914
" " " (Amendment)	(Sp. Session) 37	1917
" " " "	47	1919
" " " "	38	1920
Trading with the Enemy	39	1916
Sale of Agricultural Produce on Certain Mines	19	1917
Trading on Mining Ground Regulation Act (Transvaal) Amendment	10	1924
Wine, Spirits, and Vinegar	15	1913

SYNOPSIS OF LEGISLATION FROM 1910, CLASSIFIED ACCORDING TO SUBJECTS—*continued.*

Subject.	No. of Act.	Year.
G.—COMMERCE AND TRADE—*contd.*		
Fruit, Export of	17	1914
Agricultural Produce, Export of	35	1917
Beef Export Bounties	12	1923
Diamonds, Export of	36	1916
" "	27	1917
" " (Amendment)	34	1919
Insolvency	32	1916
Patents, Designs, and Copyright	9	1916
Telegraph Messages, Protection of	26	1917
Radio-Telegraph Station	11	1923
Public Holidays	3	1910
Bills of Exchange (Non-Business Days)	30	1913
Dairy Industry	16	1918
Factories	28	1918
Wages	29	1918
Asiatics (Land and Trading) Amendment (Transvaal)	37	1919
Profiteering	27	1920
Restriction on the Importation of Wines and Spirits Act	14	1921
Imports Regulation	13	1922
Angora Goat Export Prohibition (Repealing)	17	1922
Weights and Measures	32	1922
Adulterated Leather	2	1923
Board of Trade and Industries	33	1924
Union and Rhodesian Customs Agreement	7	1925
Public Auctions and Transactions in Live Stock and Produce	22	1925
Wage	27	1925
Customs Tariff and Excise Duties Amendment	36	1925
Diamond Control	39	1925
Merchant Shipping (Certificates of Competency)	45	1925
H.—RAILWAYS AND HARBOURS.		
Railways, Construction and Working of	33	1911
" " "	23	1913
" " "	2	1914 (Sp. Session)
" " "	41	1916
Railways Construction	30	1922
Durban Harbour (Extension of Wharf at Congella)	34	1917
Imperial Cold Storage (Branch Line)	15	1915
Messina Railway Amendment	24	1919
Messina Railway Further Amendment	27	1921
Hlobane Railway Acquisition	15	1920
South-West Africa Railways and Harbours	20	1922
Zululand Railway Construction	31	1924
Railways Construction	33	1925
New Cape Central Railway Acquisition	37	1925
Railways and Harbours Administration.		
Railway Service	28	1912
" " (Amendment)	33	1917
" Control and Management	22	1916
" " (Amendment)	32	1920
" Strike	7	1914
" " (Amendment)	34	1920
" Board	17	1916
Railways and Harbours Strike Condonation	29	1923
Railways and Harbours Service	23	1925
Railways and Harbours Superannuation Fund	24	1925

Subject.	No. of Act.	Year.
I.—FINANCE.		
(a) *General.*		
Finance	18	1915
"	42	1916
Exchequer and Audit	21	1911
" "	31	1916
Exchequer and Audit Further Amendment	37	1922
Financial Relations with Provinces	10	1913
" " "	9	1917
Financial Adjustments	42	1917
" "	43	1919
" "	40	1920
" "	38	1921
" "	38	1922
" "	35	1923
Financial Relations Act Second Extension	6	1920
Financial Relations Act Further Extension	5	1921
Financial Relations Act Fourth Extension	5	1922
Financial Relations Adjustment	21	1924
Pensions (Supplementary)	39	1922
" "	33	1923
Statutory Pensions Protection	10	1923
Financial Adjustments	36	1924
Pensions (Supplementary)	37	1924
Financial Adjustments	43	1925
Pensions (Supplementary)	44	1925
Provincial Subsidies and Taxation Powers (Amendment)	46	1925
(b) *Loans and Public Debt.*		
Loans	33	1914
" Consolidation of	22	1917
" " (Amendment)	20	1919
" Redemption of	38	1913
" (Public Works)	29	1911
" " "	33	1913
" Irrigation	18	1917
Public Debt Commissioners	18	1911
Local Stock, Registration of	19	1916
Trustee Investments in Government Securities	6	1913
(c) *Banking and Currency.*		
Natal Bank	7	1912
Bank Notes	7	1917
Land Bank	18	1912
" "	30	1916
Land Bank Act Further Amendment	36	1921
" " "	40	1922
Bills of Exchange (Non-Business Days)	30	1913
Bills of Exchange (Time of Noting)	23	1919
Bills of Exchange (Time of Noting) Act (Amendment)	8	1921
Public Holidays	3	1910
Pretoria Mint	45	1919
Currency	4	1914
" (Public Welfare and Moratorium)		(Sp. Session)
" and Banking	31	1920
Currency and Banking Amendment	22	1923
Coinage	31	1922
Cape of Good Hope Savings Bank Society Amendment	3	1924
Land Bank Acts Further Amendment	32	1924
(d) *Taxation.*		
Customs and Excise (see under COMMERCE AND TRADE above)		

SYNOPSIS OF LEGISLATION FROM 1910, CLASSIFIED ACCORDING TO SUBJECTS—*continued.*

Subject.	No. of Act.	Year.
I.—FINANCE—*contd.*		
(d) *Taxation*—contd.		
Diamond Export Duty	36	1916
" "	27	1917
" " (Amendment)	34	1919
Income Tax, Consolidating	41	1917
" "	26	1918
" " (Amendt.)	39	1919
" " "	45	1920
Income Tax	23	1922
" "	19	1923
Income Tax (Consolidation Act) Further Amendment	29	1921
Stamp Duties	30	1911
" "	31	1913
Stamp Duties and Fees Act Further Amendment	31	1921
Poll Tax (Natal), Suspension of	30	1914
Licences (Liquor)—Cape	10	1914
" " Transvaal	11	1916
" " "	33	1916
Bewaarplaats Moneys	24	1917
Transvaal Transfer Duty (Amendment)	28	1919
Death Duties	29	1922
Income Taxs	26	1924
Death Duties Act, 1922, Amendment	31	1924
Licences Consolidation	32	1925
Income Tax	40	1925
Native Taxation and Development	41	1925
(e) *Insurance.*		
Insurance	37	1923
K.—MISCELLANEOUS.		
Natural and Historical Monuments	6	1923
Bushman-Relics, Protection of	22	1911
Dutch Reformed Church Union	23	1911
Rand Water Supply	18	1914
Imperial Cold Storage	15	1915
South African Mutual Life Assurance Society	16	1915
Drought and Flood Distress, Relief of	28	1916
Drought Distress Relief	16	1924
Lord's Day Act (Natal)	8	1917
Telegraph Messages, Protection of	26	1917
Radio-Telegraph Station	11	1923
Eastern Province Guardian Loan and Investment Company	25	1920
South African Public Library (Pensions and Provident Fund)	9	1924
South African Public Library (Board of Trustees)	6	1921
Grey Collection Act	7	1921
Public Archives	9	1922
Electricity	42	1922
Boxing	5	1923
Anatomy Act Amendment	8	1923
Aviation	16	1923
Electricity Act Amendment	34	1924
Wild Birds Export Prohibition	6	1925
South African Museum Act, 1857 (Cape) Amendment	10	1925
South African Association Incorporation Act, 1906 (Cape), Amendment (Private)	11	1925

§ 5. Provincial Administration.

1. **Administrators of the Provinces.**—The *South Africa Act* provides that in each of the four Provinces there shall be a chief executive officer appointed by the Governor-General-in-Council, and styled the Administrator of the Province. All executive acts relating to Provincial affairs are done in the name of this officer. In the appointment of an Administrator preference is, as far as possible, given to a person resident in the Province. Administrators are appointed for five years, and their salaries are provided by Parliament.

2. **Executive Committees of the Provinces.**—Each Provincial Council elects at its first meeting, from among its members, or otherwise, four persons to form with the Administrator an Executive Committee for the Province, the Administrator acting as chairman. A member of a Provincial Executive Committee who is not also a member of the Provincial Council is entitled to take part in the proceedings of the Council but has not the right to vote. The function of Executive Committees is to carry on the administration of Provincial affairs on behalf of the Provincial Council. Executive Committees have the power, subject to certain considerations, to appoint officers to the Provincial Services.

3. **Functions of Provincial Administrations.**—The functions of the Administrations of the several Provinces are concerned with the matters in respect of which Provincial Councils possess the power of legislation and with those matters the administration of which has been specially assigned to the Provinces. (*Cf.* paragraph 2 of § 6 of this Chapter.) The control of primary and secondary education comprises an important part of those functions, and references to this subject will be found in Chapter IV, which deals with Education. The establishment, maintenance, and management of hospitals and charitable institutions are controlled by the Provinces, and these phases of Provincial supervision are treated of in Chapter VII and Chapter VIII respectively. Similarly, the question of the

control of municipal institutions, divisional councils, and other local governing bodies of a similar nature, with which the Provinces are concerned, is referred to in Chapter III, which deals with Local Government. Roads, outspans, ponts, and bridges (other than bridges connecting two Provinces), moreover, come under Provincial control (for particulars of these, see Chapter XX). The preservation of game and fish is likewise under the control of the Provincial Administrations (see Chapters I and XV respectively).

The Provincial Administrations also deal, among other matters, with the destruction of vermin, the eradication of noxious weeds, and the regulation of shop hours and public entertainments.

4. **Staff in the Service of the Provincial Administrations.**—Particulars are given hereunder of the authorized establishments of the Provincial Administrations in respect of the financial year 1923–24, together with a statement of the temporary staff actually employed by them at 31st December, 1923 :—

NUMBER OF PERSONS IN THE SERVICE OF THE PROVINCIAL ADMINISTRATIONS, 1923–24.

Administration.	Permanent Staff Authorized, 1923–24.			Temporary Staff Employed, 31st December, 1923.			Grand Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Cape.....	344	101	445	104	18	122	567
Natal.....	117	20	137	10	3	13	150
Transvaal.....	209	64	273	15	7	22	295
Orange Free State.	97	15	112	7	6	13	125
TOTAL....	767	200	967	136	34	170	1,137

§ 6. Provincial Councils and Legislation.

1. **Provincial Councils.**—The Provincial Council of each Province consists of the same number of elected members (sections 70–7 of the *South Africa Act*) as there are electoral divisions of the House of Assembly, unless that number is under twenty-five as is the case in Natal and the Orange Free State, when the number of members of the Provincial Council is fixed at twenty-five. Each Council has a duration of three years and is subject to dissolution only by effluxion of time. The times for sessions and their prorogation are fixed by the Administrator. There must be a session of the Council once in every year : so that a period of twelve months shall not intervene between the last sitting of a Council in one session and its first sitting in the next. Members receive allowances of £120 each annually, subject to deductions for absences. There is freedom of speech, and members are not liable to action at court for any speech or vote in a Council.

2. **Powers of Provincial Councils.**—The legislative powers of Provincial Councils are defined and limited by sections 85 to 91 of the *South Africa Act* and a series of *Financial Relations Acts*, commencing in 1913, which determined the sphere of action assigned to these bodies and regulated the financial responsibilities and powers of the Provinces in relation to the central Government. A summary of these enactments in their effect on the system of Provincial administration was given in previous issues of this *Year Book* (Nos. 1 to 6). In general, the evolution of the Provincial system has been in the direction of extending the authority of the Councils in matters of purely local concern, while limiting more strictly the scope of their activities in directions bordering on wider national issues. The more important developments of the system have centred round the financial aspect, coupled with the question of lower education, the control of which remains the most distinctive function of the Provincial Councils. Commissions of inquiry appointed in 1915 (Jagger Commission), 1922 (Baxter Commission), and 1923 (Education Administration Commission) investigated and reported upon these and other aspects of Provincial administration.

The fiscal organization of the Provinces, as regulated by Union legislation from time to time, is outlined in Chapter XXII of this *Year Book*. Other phases of Provincial government are dealt with in various sections of the *Year Book*, as indicated in paragraph 3 of § 5 above.

Any ordinance made by a Provincial Council has effect in and for the Province as long and as far as it is not repugnant to any Act of Parliament. Assent to ordinances passed by a Provincial Council must be obtained from the Governor-General-in-Council (Section 90 of the *South Africa Act*). Provincial Councils may recommend to Parliament the passing of any law relating to any matter in respect of which Councils are not competent to make ordinances.

§ 7. South Africa and the League of Nations.

1. **South Africa's Connection with the League.**—The Union of South Africa's most important connection with the League of Nations at present is its responsibility as Mandatory Power for South-West Africa. As such, the Union undertakes the administration of this territory and the annual report of the Administrator is sent by the Union Government to the Permanent Mandates Commission of the League, who submit their observations on it to the Council and the Assembly. The resolutions of each body are communicated thereafter to the Union by the Secretary-General of the League.

The League invite a representative of each Mandatory Power to be present at the yearly meeting of the Permanent Mandates Commission.

At the Assembly, the annual meeting of delegates from the States Members of the League which is held at Geneva, the Union is entitled to three representatives.

The International Labour Office is the largest branch of the League. It holds an annual Conference, six of which have hitherto been held and South Africa has been represented at each. South Africa is entitled to send four delegates to this Conference, one workers' delegate, one employers' delegate, and two Government delegates, together with advisers. The Conference is held at Geneva and considers conditions of employment and questions connected with the social welfare of the workers from an international aspect; it deals with the industrial and social problems of the day. Each Conference has drafted Conventions and Recommendations by which an endeavour is made to secure improved and uniform social and labour conditions in those States which are members of the League. (See Chapter V of this *Year Book*.)

The Union Government, as a Member of the League, receives detailed documents from the Secretariat describing the work of the various committees, and constant correspondence is maintained with the Secretary-General on matters in which the League is interested. Such subjects include disarmament, finance, commercial arbitration, customs facilities, freedom of communications and transit, traffic in drugs, traffic in women and children, health and educational measures. All documents of importance are laid on the table of the House of Assembly.

At the request of the Economic and Financial Section of the League, the Union Office of Census and Statistics supplies the League with all desired statistical information in regard to the finances and economic conditions of the Union, the more important statistics being cabled monthly to the League for the purposes of its *Monthly Bulletin of Statistics*.

2. **Contribution of South Africa to the League.**—According to Article 6 of the Covenant of the League of Nations the expenses of the League were to be apportioned among the Members of the League in the same manner as is followed in the division of the expenses of the International Bureau of the Universal Postal Union. Applying that method, the Union of South Africa was classified as a country of the *First class*. Exception was taken to this classification and on the 30th September, 1922, a reclassification was adopted by the Assembly placing South Africa in the *Fourth class*, and reducing the annual contribution for 1922 from 1,041,666 gold francs to 332,388 gold francs.

The total expenditure of the League, according to the Budget for the seventh period (1925), amounted to 22,658,138 gold francs, apportioned as follows :—

Secretariat and Special Organizations.	*Gold Francs.*
Sessions of the Assembly and Council	524,500
Preliminary Expenses for the erection of new Conference Hall	250,000
General Services of the Secretariat	6,196,861
Special Organizations of the League	5,245,973
Buildings, permanent equipment, etc	1,142,000
Working Capital Fund	50,000
Other Organizations.	
International Labour Organization	7,340,595
Permanent Court of International Justice	1,908,209
TOTAL	22,658,138

The following contributions to the League have been paid by South Africa :—

Year.	*Gold Francs.*	£ s. d.
1919	—	16,234 0 0
1920	523,000	28,462 17 4
1921*	324,592	15,916 8 5
1922	332,388	14,353 6 11
1923	407,947.68	17,347 12 7
1924	347,613.12	15,061 17 2
1925	363,499.54	14,465 5 3

§ 8. Electorate.

1. **Qualifications of Parliamentary Voters.**—Parliament, in terms of section 35 (i) of the *South Africa Act*, may by law prescribe the qualifications which entitle persons to vote at the elections of members of the House of Assembly : subject to the limitation that no such law shall disqualify, by reason of race or colour only, persons who are or may become registered voters under the law of the Cape of Good Hope unless passed by a two-thirds majority of both Houses of Parliament sitting together. No Act has yet been passed by the Union Parliament dealing with the qualifications of voters. Act No. 12 of 1918 provides for the registration of voters for the House of Assembly and all Provincial Councils, and for contingent matters.

(1) *All Provinces.*—Throughout the Union the franchise is confined to male adults.

(2) *Cape Province.*—No distinction is made as regards race or colour.

The franchise is based on (*a*) education, and (*b*) occupation of property *or* income :—

(*a*) *Education.*—Although qualified in every other respect, no person may be registered as a voter unless he is able to sign his name and write his address and occupation. Persons who were registered as Parliamentary voters in any fiscal division of the Cape Province on the 1st January, 1893, are exempt from this provision, provided they can show that they have since continued to reside in such division.

(*b*) *Occupation, Property, or Income.*—Broadly speaking, it is necessary for a person to possess *either* of the following qualifications :—

(i) *Occupation.*—I.e. occupation within the Cape Province (either solely or jointly with other persons) for not less than twelve months next before the day on which the registration commenced, and for the last three months of such period within the electoral division for which such person claims to be registered, of a house, warehouse, shop, office, or other building which, either separately or jointly with any land within the electoral division, is of the value of £75. If there is more than one joint occupier, the share of each occupier claiming to vote must be of the value of £75.

(NOTE.—In the case of persons who were registered on the 1st January, 1893, and who have continued to reside in the division in which they were residing on that date, the value of the premises need only be £25.)

Or,

(ii) *Salary or Wages.*—I.e. real and *bona fide* receipt for not less than twelve months of salary or wages at the rate of not less than £50 per annum. In order to possess this qualification, it is necessary that the person shall have really and *bona fide* earned such salary or wages within the Cape Province for the space of twelve months next before the day on which the registration commenced, and, in addition—

(*a*) that for the last three months of such period he shall have earned such salary or wages within the electoral division for which he claims to be registered ; *or*

(*b*) that for the last three months of such period he shall have resided within the electoral division for which he claims to be registered ; *or*

(*c*) that at the time the registration commenced he shall have actually and *bona fide* taken up his residence in the electoral division for which he claims to be registered.

(NOTE.—In the case of persons who were registered on the 1st January, 1893, and who have continued to reside in the division in which they were residing on that date, receipt of a salary of £25 per annum plus board and lodging is also a qualification.)

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* The total claim for 1921 amounted to 1,041,666 gold francs, which amount has now been paid in full, as follows :—

In 1921	Gold francs	324,592
March, 1923	,,	109,378.77
March, 1924	,,	153,678.35
September, 1924	,,	26,318.79
March, 1925	,,	210,679.16
November, 1925	,,	217,018.93
TOTAL	,,	1,041,666

Special provisions in force in the former Province of Griqualand West (comprising the fiscal divisions of Kimberley, Barkly West, Hay, and Herbert):—

(i) *Occupation or salary or wages qualifications.*—In the case of a person who at the date of the taking effect of Act No. 9 of 1892 was registered in any fiscal division formerly comprised in the Province of Griqualand West, and who has continued to reside in the fiscal division in which he was registered when the Act took effect, it is enough to show that—

(*a*) for the space of six months immediately preceding the day when the registration of voters commenced, he had occupied premises of the value of not less than £25; *or*

(*b*) for the space of six months immediately preceding that date he was in receipt of salary at the rate of not less than £100 a year, or £50 a year in addition to his board and lodging.

(ii) *Diggers' qualification.*—Every person not otherwise disqualified by law who in any electoral division formerly comprised in the Province of Griqualand West for the space of six months immediately preceding the day when the registration of voters commenced was the duly registered holder of a licence to dig and search for diamonds in any claim or portion of a claim is entitled to be registered as a voter.

(3) *Natal Province.*—The franchise is confined mainly to Europeans.

Every male native resident in, or possessing the necessary qualification in, Natal is disqualified for registration as a voter unless he possesses a certificate from the Governor entitling him to be registered.

Persons who (not being of European origin) are natives or descendants in the male line of natives of countries which had not, prior to the 23rd May, 1896, possessed elective representative institutions founded upon the parliamentary franchise are disqualified to be registered as voters unless possessed of certificates of exemption granted by the Governor-General-in-Council. The qualifications are (*a*) ownership, (*b*) income.

(*a*) *Ownership* of immovable property of the value of £50 or the *renting* of such property of the yearly value of £10 within any electoral division in Natal. In the case of joint occupation, the value or the rent of the property must be sufficient to entitle each of the joint occupiers to be registered if equally divided among them.

(*b*) *Income*, inclusive of allowances equal to £8 per month or £96 per annum, together with a total residence of three years in the Union and a residence of six months out of the last seven months in the electoral division.

(NOTE.—Only persons who are not qualified on account of the property or rental qualification may claim this qualification.)

(4) *Transvaal and Orange Free State Provinces.*—The franchise is confined to Europeans

Qualification.—Residence *anywhere in the Union* for a period of six months immediately preceding the date of commencement of the registration of voters, with bona fide residence in the electoral division on that date.

2. Elections.—Prior to the date appointed for the establishment of the Union a Delimitation Commission was appointed to arrange for the necessary partition of each of the four Provinces into electoral divisions, each division to return one member. The "quota of the Union" as defined in section 34 is 2891. The "quota of each province" as defined in section 40 varies from delimitation to delimitation (see Reports of Delimitation Commission). Sections 34 and 40 of the *South Africa Act* prescribes the method of delimitation to be followed. Section 41 provides that after each quinquennial census (which is required to be taken under the Act) a similar Commission must be appointed to effect necessary redivisions and adjustments, and to provide for the allocation to any Province as the result of the increase of the European male adult population of any additional member or members of Parliament to which it may have become entitled. Any such alteration of numbers becomes effective at the next following general election. A second Delimitation Commission was appointed in 1912, after the Census of 1911, and a third under the chairmanship of Sir J. H. Lange, Kt., in July, 1919. The fourth Delimitation Commission was appointed in December, 1922, under the chairmanship of the late Sir J. H. Lange, Kt., who was succeeded by the late Sir A. W. Mason, Kt., and to it was submitted the data derived from the Population Census taken on the 3rd May, 1921. The allocation of members to each Province as determined by this Commission is given in page 93. The following table gives the result of this Census in so far as the requirements of section 34 (vi) of the *South Africa Act* are concerned.

NUMBER OF EUROPEAN MALE ADULTS—CENSUS OF 1921.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Number enumerated within the Union	170,292	41,919	149,503	49,279	410,993
Number of Members of Imperial Forces enumerated	814	26	14	2	856
TOTAL NUMBER OF EUROPEAN MALE ADULTS* (CENSUS OF 1921)	169,478	41,893	149,489	49,277	410,137
TOTAL NUMBER OF EUROPEAN MALE ADULTS* (CENSUS OF 1904)	167,546	34,784	106,493	41,014	349,837
INCREASE	1,932	7,109	42,996	8,263	60,300

* As defined in *South Africa Act* (§ 34).

3. **Registered Voters in Electoral Divisions.**—The following tables show for the last five biennial registrations in each Province the number of voters registered in each Parliamentary electoral division :—

NUMBER OF VOTERS REGISTERED IN EACH ELECTORAL DIVISION.

(i) CAPE OF GOOD HOPE.

Electoral Division.	Year of Registration.				
	1917.	1919.	1921.	1923.	1925.
Albany	3,193	3,202	3,857	3,640	3,667
†Albert	3,032	2,763	4,191	3,509	3,499
†Aliwal	2,712	2,741		3,383	3,478
Barkly	3,831	3,220	3,910	3,368	3,066
Beaconsfield	3,069	3,233	3,687	3,216	3,099
Beaufort West	3,661	3,761	3,893	3,238	3,202
Bechuanaland	4,107	4,397	3,758	3,039	3,155
§Border	3,147	3,059	4,048	—	—
Caledon	3,435	3,812	3,813	3,655	3,757
Calvinia	3,337	3,528	3,339	3,561	3,350
Cape Town—					
Central	4,035	4,097	3,603	4,666	3,993
Gardens	4,082	3,993	4,463	4,502	4,985
§Castle	3,796	3,989	3,075	—	—
‡Hanover Street	—	—	—	4,496	4,342
Harbour	4,593	5,403	3,938	4,801	4,723
Ceres	3,269	3,457	3,764	3,595	3,568
Colesberg	3,152	3,206	3,864	3,434	3,485
Cradock	3,216	3,355	3,594	3,586	3,872
East London—					
‡City	4,383	4,816	4,916	3,464	3,850
‡North				3,470	4,001
Fort Beaufort	2,950	2,842	3,486	3,614	3,535
George	3,612	3,205	4,333	3,739	3,943
‡Gordonia	—	—	—	3,278	3,091
Graaff-Reinet	2,907	3,137	3,310	3,669	3,728
Griqualand	3,233	3,372	3,983	3,558	3,741
Hope Town	3,581	3,819	3,409	3,483	3,794

† Constituted electoral division by Third Delimitation Commission.
‡ Constituted electoral division by Fourth Delimitation Commission.
§ Electoral division abolished by Fourth Delimitation Commission

NUMBER OF VOTERS REGISTERED IN EACH ELECTORAL DIVISION—*contd.*

(i) CAPE OF GOOD HOPE—*contd.*

Electoral Division.	Year of Registration.				
	1917.	1919.	1921.	1923.	1925.
Humansdorp	3,243	3,172	3,466	3,609	3,605
Kimberley	3,063	3,167	4,034	3,401	3,225
King William's Town	3,320	3,419	4,116	3,664	3,416
Ladismith	3,254	2,863	3,398	3,642	3,756
Liesbeek	4,308	5,011	4,581	4,453	4,311
Malmesbury	3,374	3,737	3,749	3,978	4,187
Namaqualand	3,072	2,972	3,395	3,583	3,586
Newlands	4,320	5,050	3,291	4,059	3,809
Oudtshoorn	3,593	2,974	3,627	3,995	4,121
Paarl	3,485	3,395	4,138	4,007	4,141
Piquetberg	3,481	3,842	3,873	3,772	3,869
Port Elizabeth—					
Central	4,544	4,629	4,114	3,134	3,208
South	4,024	4,206	4,342	3,729	4,022
§Prieska	3,706	3,950	4,139	—	—
Queenstown	2,921	2,916	4,242	3,812	3,837
Riversdale	3,760	3,586	3,872	3,955	4,137
Rondebosch	3,926	4,494	3,806	3,904	4,088
†Salt River	—	—	3,350	5,008	3,774
Somerset	3,172	3,108	3,519	3,770	3,971
South Peninsula	4,013	4,485	3,910	4,327	4,516
Stellenbosch	3,207	3,171	4,381	4,087	4,535
Swellendam	3,492	3,734	3,668	3,598	3,845
Tembuland	3,332	3,387	4,001	3,653	3,802
Three Rivers	4,277	4,692	4,894	3,597	4,115
Uitenhage	3,170	3,290	4,467	3,596	4,023
Victoria West	3,283	3,230	3,488	3,495	3,476
Wodehouse	3,033	2,913	3,761	3,366	3,417
§Woodstock	4,693	5,283	3,345	—	—
Worcester	3,621	3,322	4,372	3,858	4,030
TOTAL	181,020	186,405	197,573	191,016	193,746

† Constituted electoral division by Third Delimitation Commission.
§ Electoral division abolished by Fourth Delimitation Commission.

(ii) NATAL.

Electoral Division.	Year of Registration.				
	1917.	1919.	1921.	1923.	1925.
Dundee	2,112	1,755	1,901	1,762	1,734
Durban—					
Berea	2,599	2,704	1,916	2,162	2,790
Central	2,233	2,179	1,935	1,988	2,257
Greyville	2,424	2,916	1,784	2,106	2,471
Point	2,333	2,136	2,391	2,082	2,307
†Stamford Hill	—	—	2,145	2,563	2,940
Umbilo	2,313	2,043	2,375	2,292	3,400
†Illovo	—	—	1,821	2,002	2,163
Klip River	2,048	1,989	2,170	1,971	2,017
†Natal Coast	—	—	2,182	1,984	2,345
Newcastle	1,790	1,390	1,976	1,821	1,803
Pietermaritzburg—					
North	2,500	2,471	2,179	1,718	1,955
South	2,402	2,348	2,060	1,599	1,951
‡Umlazi	1,778	1,452	—	—	—
Umvoti	1,815	1,630	1,576	1,834	1,970
‡Umzimkulu	1,780	1,562	—	—	—
‡Victoria County	1,839	1,442	—	—	—
Vryheid	1,659	1,435	2,109	2,086	2,354
Weenen	1,580	1,524	1,833	1,896	2,023
Zululand	2,050	1,996	2,124	1,771	2,067
TOTAL	35,255	32,972	34,477	33,637	38,547

† New electoral division created by Third Delimitation Commission.
‡ Electoral division abolished by Third Delimitation Commission.
§ New electoral division created by Fourth Delimitation Commission.

NUMBER OF VOTERS REGISTERED IN EACH ELECTORAL DIVISION—*contd.*

(iii) TRANSVAAL.

Electoral Division.	Year of Registration.				
	1917.	1919.	1921.	1923.	1925.
Barberton	2,649	2,540	2,899	2,794	2,904
Benoni	3,995	4,175	3,378	2,296	2,567
Bethal	3,093	3,513	2,749	2,531	2,544
Bezuidenhout	3,421	3,991	3,142	3,292	3,828
Boksburg	2,045	1,962	2,752	2,627	2,416
†Brakpan	—	—	3,639	2,586	2,760
Commissioner Street	1,653	1,636	2,851	—	—
†Christiana	—	—	3,165	2,196	1,665
§Delarey	—	—	—	2,160	2,092
Denver	2,417	2,090	2,837	3,000	2,994
Ermelo	3,055	3,084	2,971	2,915	2,890
Fordsburg	2,227	2,561	2,262	2,853	3,006
‡Georgetown	2,796	2,609	—	—	—
Germiston	2,335	2,085	3,195	2,791	2,857
Heidelberg	2,992	3,073	3,145	2,459	2,527
Hospital	2,652	2,648	3,001	2,906	3,202
†Jeppes	—	—	2,732	2,851	2,629
†Johannesburg North	—	—	3,025	3,294	3,619
Kierksdorp	2,937	2,989	2,958	2,327	2,383
Krugersdorp	2,672	2,245	2,770	2,686	2,641
Langlaagte	2,528	2,177	2,754	3,015	3,177
Lichtenburg	3,601	3,641	2,705	2,451	2,576
Losberg	3,366	3,277	2,641	2,689	2,826
Lydenburg	3,317	3,394	2,399	2,656	2,816
‡Maraisburg	2,702	2,780	—	—	—
Marico	3,147	3,298	3,084	2,525	2,510
Middelburg	3,661	3,909	2,692	2,632	2,706
§North-East Rand	—	—	—	2,719	2,786
‡Ophirton	2,237	1,870	—	—	—
Parktown	3,492	3,914	3,149	3,524	4,235
†Pietersburg	—	—	2,953	2,719	2,513
Potchefstroom	2,916	3,251	2,709	2,558	2,695
Pretoria—					
Central	2,642	2,930	2,976	2,697	2,783
East	3,276	3,491	3,097	3,043	3,469
North	2,899	3,401	2,344	2,508	3,122
South	3,385	4,282	2,964	2,237	2,274
West	2,934	3,286	2,509	2,946	3,188
‡Randfontein	2,026	2,007	—	—	—
†Roodepoort	—	—	2,476	2,606	2,791
Rustenburg	3,363	3,909	3,179	2,441	2,588
‡Siemert	2,178	2,180	—	—	—
Springs	3,884	4,361	2,974	2,710	2,627
Standerton	2,806	3,171	2,502	2,800	2,925
Troyeville	2,582	2,564	2,590	2,820	3,062
Turffontein	3,821	4,207	3,041	3,059	3,425
†Ventersdorp	—	—	2,862	2,533	2,278
Von Brandis	2,283	2,800	2,288	2,785	2,864
Vrededorp	3,504	3,562	2,701	3,252	3,288
Wakkerstroom	2,849	2,812	3,142	2,611	2,527
Waterberg	3,043	3,307	3,079	2,826	3,090
†Witbank	—	—	2,634	2,527	2,557
Witwatersberg	3,273	3,324	2,371	2,736	2,550
Wolmaransstad	4,164	4,824	3,829	2,379	2,280
†Wonderboom	—	—	2,931	3,063	3,319
Yeoville	3,077	3,460	2,923	3,270	3,388
Zoutpansberg	3,016	3,993	2,620	2,454	2,647
TOTAL	132,911	140,583	140,589	136,355	141,406

† New electoral division created by Third Delimitation Commission.
‡ Electoral division abolished by Third Delimitation Commission.
§ New electoral division created by Fourth Delimitation Commission.
‖ Electoral division abolished by Fourth Delimitation Commission.

NUMBER OF VOTERS REGISTERED IN EACH ELECTORAL DIVISION—*contd.*

(iv) ORANGE FREE STATE.

Electoral Division.	Year of Registration.				
	1917.	1919.	1921.	1923.	1925.
Bethlehem	3,091	3,111	3,345	2,489	2,916
‡Bloemfontein	3,367	3,553	—	—	—
‡Bloemfontein District	2,567	2,705	—	—	—
†Bloemfontein North	—	—	3,178	3,206	3,444
†Bloemfontein South	—	—	3,068	2,539	2,778
Boshof	2,243	2,392	2,736	2,532	2,477
Edenburg	2,368	2,382	2,572	2,548	2,579
Fauresmith	1,998	2,059	2,770	2,347	2,446
Ficksburg	2,863	2,846	3,021	3,083	3,216
Frankfort	3,362	3,509	3,038	2,679	2,776
Harrismith	2,819	2,749	2,998	2,949	3,031
Heilbron	2,596	2,861	3,240	2,594	2,802
Hoopstad	2,654	2,614	2,665	2,761	2,766
Kroonstad	2,972	2,938	2,982	2,882	2,934
Ladybrand	2,379	2,424	2,742	2,536	2,503
‖Rouxville	2,895	2,683	2,765	—	—
Smithfield	2,440	2,347	2,345	2,717	2,727
Vredefort	2,779	3,264	2,935	2,854	2,738
§Wepener	—	—	—	2,681	2,691
Winburg	2,894	3,044	2,910	2,685	2,896
TOTAL	46,287	47,481	49,310	46,082	47,720

† New electoral division created by Third Delimitation Commission.
‡ Electoral division abolished by Third Delimitation Commission.
§New electoral division created by Fourth Delimitation Commission.
‖Electoral division abolished by Fourth Delimitation Commission.

4. **Parliamentary Representatives and Number of Registered Voters.**—The statement below shows, in respect of each Province, the number of Parliamentary representatives and registered voters at each registration, and the average number of registered voters to each representative :—

PARLIAMENTARY REPRESENTATIVES AND VOTERS, AND AVERAGE NUMBER OF VOTERS TO EACH REPRESENTATIVE AT EACH REGISTRATION.

Province and Year.	Number of Representatives.	Number of Registered Voters,			Average Number of Voters to each Representative.
		Total.	European.	Other than European.	
Cape of Good Hope—					
1909	51	142,367	121,346	21,021	2,791
1911	51	148,551	125,459	23,092	2,913
1913	51	155,697	131,350	24,347	3,053
1915	51	169,851	142,479	27,372	3,330
1917	51	181,020	150,594	30,426	3,549
1919	51	186,405	153,266	33,139	3,655
1921	51	197,573	156,501	41,072	3,874
1923	51	191,016	152,836	38,180	3,745
1925	51	193,746	156,893	36,853	3,799
Natal—					
1911	17	29,400	*	*	1,729
1912	17	29,445	29,259	186	1,732
1913	17	31,124	30,798	326	1,831
1914	17	32,632	32,318	314	1,920
1915	17	33,507	33,239	268	1,971
1916	17	34,239	33,991	248	2,014
1917	17	35,255	—	—	2,074
1919	17	32,972	32,624	348	1,939
1921	17	34,477	34,041	436	2,028
1923	17	33,637	33,285	352	1,979
1925	17	38,547	38,199	348	2,267

* Information not available.

PARLIAMENTARY REPRESENTATIVES AND VOTERS, AND AVERAGE NUMBER OF VOTERS TO EACH REPRESENTATIVE AT EACH REGISTRATION—*contd.*

Province and Year.	Number of Representatives.	Number of Registered Voters.			Average Number of Voters to each Representative.
		Total.	European.	Other than European.	
Transvaal—					
1908-09.....	36	97,742	97,742	—	2,715
1910-11.....	36	115,056	115,056	—	3,196
1912-13.....	45	118,559	118,559	—	2,635
1914-15.....	45	121,168	121,168	—	2,693
1916-17.....	45	132,911	132,911	—	2,953
1919.....	45	140,583	140,583	—	3,124
1921.....	49	140,589	140,589	—	2,869
1923.....	50	136,355	136,355	—	2,727
1925.....	50	141,406	141,406	—	2,828
Orange Free State—					
1909-10.....	17	38,261	38,261	—	2,250
1911-12.....	17	39,817	39,817	—	2,342
1913-14.....	17	40,781	40,781	—	2,399
1915-16.....	17	46,253	46,253	—	2,721
1917-18.....	17	46,287	46,287	—	2,723
1919.....	17	47,481	47,481	—	2,793
1921.....	17	49,310	49,310	—	2,900
1923.....	17	46,082	46,082	—	2,711
1925.....	17	47,720	47,720	—	2,807

5. **By-Elections.**—The following table gives the particulars of the Parliamentary by-elections which have taken place since the General Election of 1924. Tables showing the results of the General Election appeared in the previous issue of the *Official Year Book* :—

PARTICULARS OF BY-ELECTIONS SINCE THE GENERAL ELECTION, 17th JUNE, 1924.

Province and Electoral Division.	Number of Voters on Register.	Number of Candidates.	Number of Votes Cast.†	Percentage of Voters on Register.	Successful Candidates.	
					Votes Cast for.	Percentage of Votes Recorded.
CAPE OF GOOD HOPE.						
Beaufort West.....	3,190	2	2,426	76·05	1,728	71·23
Graaff-Reinet.....	3,661	2	2,623	71·65	1,712	65·27
Somerset East.....	3,958	1*	—	—	—	—
TRANSVAAL.						
Klerksdorp.....	2,564	2	2,219	86·54	1,289	58·09
Pretoria South.....	2,274	2	1,872	82·32	1,111	59·35
Standerton.....	2,804	1*	—	—	—	—
ORANGE FREE STATE.						
Boshof.....	2,505	1*	—	—	—	—
Winburg.....	2,753	1*	—	—	—	—
Kroonstad.....	2,919	2	2,237	76·64	1,424	63·66

* Uncontested election. † Exclusive of spoilt papers.

6. **Electoral System for Provincial Councils.**—In the Cape and Transvaal Provinces the electoral divisions for members of the House of Assembly and members of the Provincial Council are coincident. In Natal and the Orange Free State, owing to the fact that only seventeen members are returned in each case for the House of Assembly, whereas each of the Provinces returns twenty-five members to the Provincial Council, the electoral divisions do not coincide, having been determined for each purpose by the Delimitation Commission. In other respects the law relating to elections for the House of Assembly applies to elections for Provincial Councils.

7. **Provincial Council Representatives and Number of Registered Voters.**—The statement below shows, in respect of each Province, the number of Provincial Council representatives and registered voters at each registration and the average number of registered voters per representative :—

PROVINCIAL COUNCIL REPRESENTATIVES AND VOTERS, AND AVERAGE NUMBER OF VOTERS TO EACH REPRESENTATIVE AT EACH BIENNIAL REGISTRATION.

PROVINCE AND YEAR.	Number of Representatives.	NUMBER OF REGISTERED VOTERS.			Average Number of Voters to each Representative.
		Total.	European.	Other than European.	
Cape of Good Hope—					
1909	51	142,367	121,346	21,021	2,791
1911	51	148,551	125,459	23,092	2,913
1913	51	155,697	131,350	24,347	3,053
1915	51	169,851	142,479	27,372	3,330
1917	51	181,020	150,594	30,426	3,549
1919	51	186,405	153,266	33,139	3,655
1921	51	197,573	156,501	41,072	3,874
1923	51	191,016	152,836	38,180	3,745
1925	51	193,746	156,893	36,853	3,799
Natal—					
1911	25	29,733	*	*	1,189
1912	25	31,084	30,919	165	1,243
1913	25	31,254	30,961	293	1,250
1914	25	32,887	32,601	286	1,315
1915	25	33,641	33,390	251	1,346
1916	25	34,335	34,085	250	1,373
1917	25	—	—	—	—
1919	25	32,972	32,624	348	1,319
1921	25	34,477	34,041	436	1,379
1923	25	33,637	33,285	352	1,345
1925	25	38,547	38,199	348	1,542
Transvaal—					
1908–09	36	97,742	97,742	—	2,715
1910–11	36	115,056	115,056	—	3,196
1912–13	45	118,559	118,559	—	2,635
1914–15	45	121,168	121,168	—	2,693
1916–17	45	132,911	132,911	—	2,953
1919	49	140,583	140,583	—	2,869
1921	50	140,589	140,589	—	2,812
1923	50	136,355	136,355	—	2,727
1925	50	141,406	141,406	—	2,828
Orange Free State—					
1909–10	25	38,261	38,261	—	1,530
1911–12	25	39,817	39,817	—	1,592
1913–14	25	40,781	40,781	—	1,631
1915–16	25	46,253	46,253	—	1,850
1919	25	47,481	47,481	—	1,899
1921	25	49,310	49,310	—	1,972
1923	25	46,082	46,082	—	1,843
1925	25	47,720	47,720	—	1,909

* Information not available.

8. **Provincial Council By-Elections.**—The following table gives the particulars in respect of the by-elections which have taken place since the Provincial Council General Elections of 1923. Tables showing the results of the elections of 1923 were published in the previous issue of the *Official Year Book*:—

PROVINCIAL COUNCIL BY-ELECTIONS.

Province and Electoral Division.	Date of Election.	Number of Voters on Register.	Number of Candidates.	Number of Votes Cast.†	Percentage of Voters on Register.	Successful Candidates.	
						Votes Cast for.	Percentage of Votes Recorded.
CAPE OF GOOD HOPE.							
Cape Town (Central)	30.4.24	4,704	2	2,014	42·81	1,286	63·85
Piquetberg	3.7.24	3,819	2	2,558	66·98	1,663	65·01
Albert	12.7.24	3,782	1*	—	—	—	—
Cape Town (Gardens)	12.7.24	4,630	2	2,524	54·51	1,619	64·14
Griqualand	12.7.24	3,668	1*	—	—	—	—
Malmesbury	29.7.24	4,184	2	3,474	83·03	1,926	55·44
Tembuland	30.7.24	3,554	3	1,631	45·89	804	49·29
Griqualand	10.6.25	3,741	1*	—	—	—	—
Port Elizabeth (Central)	30.6.25	3,133	2	2,427	77·47	1,389	57·23
Albert	1.10.25	3,497	2	2,261	64·66	1,512	66·87
Beaufort West	29.12.25	3,202	1*	—	—	—	—
Swellendam	29.12.25	3,846	1*	—	—	—	—
NATAL.							
Durban—							
Berea Road	7.11.24	1,481	2	953	64·35	549	57·61
Toll Gate	6. 8.24	1,561	1*	—	—	—	—
Umvoti	27.11.25	1,356	2	959	70·72	517	53·91
TRANSVAAL.							
Pretoria—							
District (North)	17.6.24	2,739	2	1,931	70·50	1,148	59·45
Delarey	21.7.24	2,324	1*	—	—	—	—
Vrededorp	21.7.24	3,298	1*	—	—	—	—
Wonderboom	6.8.24	3,231	3	1,189	36·80	820	68·97
Vrededorp	20.5.25	3,287	2	1,172	35·63	838	71·50
ORANGE FREE STATE.							
Bloemfontein—							
East	13.8.24	2,280	2	985	43·20	567	57·56
Bethlehem	3.12.24	1,905	1*	—	—	—	—

* Uncontested election. † Exclusive of spoiled papers.

CHAPTER III.

LOCAL GOVERNMENT.

§ 1. Powers and Duties of Local Governing Bodies.

1. **Cape of Good Hope.**—Local government in the Province of the Cape of Good Hope is administered primarily by divisional councils, municipal councils, and village management boards, these bodies being under the legislative control of the Provincial Council.

(i) *Divisional Councils.*—The powers and functions of divisional councils as most recently defined are chiefly embodied in Ordinance No. 13 of 1917, and Act No. 36 of 1919, and relate to the maintenance of roads, bridges, pontoons, and ferries, and the control of outspans and trekpaths; the destruction of noxious weeds; local rating; vehicle taxation; and public health. Divisional councils were first established in the year 1855, and the areas of their jurisdiction are the fiscal divisions of the Province.

(ii) *Municipal Councils.*—Municipal councils are empowered to act under Ordinance No. 10 of 1912 and amending Ordinances. Their functions comprise the rating of immovable property, the control of drainage, water supply and sanitation; the upkeep of burial grounds, botanical gardens, municipal roads, streets and bridges; the control of recreation grounds, and a number of other matters specified in those Ordinances. Further functions of municipal councils are set out in Ordinance No. 13 of 1917 and Act No. 36 of 1919.

(iii) *Village Management Boards.*—Village management boards are constituted under Ordinance No. 10 of 1921, and these bodies are concerned with the maintenance of public streets, the provision of water supply, the prevention or suppression of disease, the control of common lands, and similar matters. They are also affected by the provisions of section 9 (7) of Act No. 23 of 1897, Ordinance No. 13 of 1917, and Act No. 36 of 1919.

(iv) *Local Board Areas.*—Local boards are constituted under Ordinance No. 11 of 1921. They are either constituted in localities adjacent to large municipalities, where, by reason of their proximity to such bodies, it is not considered advisable to establish village management boards, or over small communities which require some form of local government rather wider in scope than the "local areas" established under the control of divisional councils and not sufficiently advanced for the establishment of village management boards. One of the main differences between local boards and village management boards is that in the former case the membership is confined to three—two being appointed by the Administrator and one elected. In the case of village management boards, all members (either three or six) are elected. The functions of the boards are very similar to those of village management boards, and they are also affected by the provisions of Ordinance No. 13 of 1917 and Act No. 36 of 1919.

(v) *Local Areas.*—Local areas may be constituted in districts under the control of divisional councils for the regulation of water supply, the use of slaughter places, the management of burial grounds, the erection of buildings, etc. These areas are constituted under Ordinance No. 13 of 1917.

2. **Natal.**—(i) *Municipal Councils.*—In the Natal Province the municipalities are governed by the *Boroughs Ordinance*, No. 19, 1924. Each borough has certain powers of sale, by public auction or in certain cases by private bargain, on freehold or leasehold of its town lands, subject in most instances to the consent of the Administrator. Town councils also have similar powers with regard to leasing any portion of the town lands for periods not exceeding ninety-nine years. Each borough is divided into not fewer than four wards, each ward returning two town councillors who are elected by the burgesses for a period of two years, one-half of the councillors retiring annually. The mayor is elected by the councillors from among their number. Town councils are in certain circumstances empowered to raise money by overdraft or otherwise, but in most instances special loan Ordinances are passed under which the flotation of loans for specific purposes on the security of the borough rates and revenues is authorized. With few exceptions licences are issued by the municipalities. The issue of liquor licences is controlled by licensing boards appointed under Act No. 38, 1896. Market rights vest absolutely in the municipalities. New by-laws and amendments of existing ones are subject to the consent of the Administration.

(ii) *Local Boards.*—The local boards are governed by Law No. 11 of 1881 and several amending laws, and have powers similar in nature to those conferred on municipalities but less extensive. In addition to all matters relating to the sale or lease of town lands, all new by-laws or amendments and particulars of the cancellation of existing ones must be referred to the Administrator for approval. All municipal and township accounts are subject to annual audit by the Provincial Auditor.

A draft Ordinance repealing and consolidating the existing laws relating to townships is at present (July, 1925) under consideration in the Provincial Council.

(iii) *Villages.*—A village may, at the instance of its householders, be brought by proclamation under the provisions of Act No. 19, 1897. The Administrator may then authorise the construction of works for the supply of water. The capital cost of the scheme is met from Government funds, and rates are imposed to cover the interest charges and the cost of maintaining the work.

(iv) *Public Health Committees.*—These have been elected under Ordinance No. 7, 1923, and amending Ordinances, for certain areas adjacent to the borough of Durban. Within its area each committee exercises the powers and carries out the duties conferred or imposed on local authorities under the Public Health Act, etc. The Ordinances empower them to levy rates and impose fees and charges for services rendered.

3. Transvaal.—*The Local Government Ord nance*, No. 9 of 1912 (amended by Ordinances Nos. 1 of 1915, 6 of 1916, 12 of 1917, 6 of 1918, 8 of 1919, 14 of 1919, 4 of 1920, 10 of 1920, 12 of 1921, 14 of 1923, 6 of 1924, 12 of 1924, and 5 of 1925), consolidated the law relating to municipal government in the Transvaal Province. This Ordinance, a comprehensive measure defining in great detail the organization and functions of each form of local authority, provides for three grades of such authorities—town councils, village councils, and health committees. Among other main laws affecting municipal government may be mentioned the *Municipal Elections Ordinance*, No. 8 of 1912 (amended by Ordinances Nos. 2 of 1914, 10 of 1914, and 4 of 1918); the *Local Authorities Rating Ordinance*, No. 6 of 1912 (amended by Ordinances Nos. 1 of 1916, 4 of 1917, 12 of 1918, 9 of 1919, 9 of 1921, and 9 of 1925), in terms of which all local authorities are empowered to levy an assessment rate; the *Local Authorities Roads Ordinance*, No. 44 of 1904, applicable to town councils only; the *Municipal Expropriation Ordinance*, No. 64 of 1903, applicable generally to town councils only, though the provisions of sections 9 to 12 inclusive apply in the case of any arbitration proceedings in connexion with any works which may be undertaken by a village council under sections 73 and 77 of Ordinance No. 9 of 1912. Under section 8 of Ordinance No. 12 of 1924 the Executive Committee of the Province has power upon the application of a village council to apply to such council the provisions of Ordinance No. 64 of 1903 and the *Town Lands Ordinances* of 1904 and 1905, applicable to town and village councils.

The *Local Government Ordinance*, No. 9 of 1912 (as amended), distinguishes between the powers and duties of the bodies formerly known as major and minor municipalities, now known as town councils and village councils respectively. Formerly the powers and duties of major and minor municipalities were identical. The effect of the Ordinance was to apportion to village councils only the simpler and more elementary powers and duties given to town councils, while the more elaborate and complex powers necessary for large communities, such as those of Johannesburg and Pretoria, were separated and can now only be conferred on town councils on good cause shown. The powers and duties of village councils are similar to those of the village management boards of the Cape Province. The Ordinance provides for a simplified election procedure for village councils and abolished much of the machinery which applied to municipalities in the smaller towns under previous legislation. A form of local government by means of health committees is provided for such committees to control matters of sanitation and public health. Additional committees may be constituted from time to time, and the Administrator may by regulation render such committees responsible for the control of water-furrows, cemeteries and pounds.

4. Orange Free State.—The system of local government in the Orange Free State embraces municipalities and village boards of management.

(i) *Municipalities.*—As soon as a community has shown that it is ripe for the grant of somewhat further powers of local self-government than are exercisable by a village board of management it may be proclaimed by the Administrator as a municipality. The powers of town councils are similar to, but cover a much wider field than, those of village boards of management. No immovable property may be alienated by a town council without the consent of the Administrator. The accounts of councils are audited by municipal auditors who are appointed by and perform their duties on behalf of the Provincial Administration.

(ii) *Village Boards of Management.*—In the case of village boards of management the boards are given power to deal with the more necessary matters appertaining to local government, e.g. the passing of regulations relating to grazing, sanitation, pounds, etc., and the raising of loans not exceeding £1,000 for public works. Subject to the approval of the Administrator, boards are empowered to frame, amend and repeal such regulations from time to time.

(iii) *Municipalities and Village Boards of Management.*—All matters affecting natives and their locations are dealt with under the *Natives (Urban Areas) Act*, No. 21 of 1923.

§ 2. Municipal Rating.

The following tabular statement shows the incidence of rating, the amount leviable, the exemptions, and the ordinances under which local authorities in the several Provinces of the Union are empowered to levy taxation for the purpose of obtaining funds to carry out local government services.

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances
**Cape of Good Hope.*—				
†General rate.....	4d.	—	Property of the Crown or property occupied by the Union Government or Provincial Administration as follows :—	No. 10 of 1912 as amended by No. 6 of 1914, No. 7 of 1915, and No. 17 of 1917.
†When rateable valuation exceeds £1,000,000.....	6d.	—	Land which has not been built upon or	
†Special rate.....	4d.	—	upon which permanent improvements have not been made; docks, breakwaters, etc., or any immovable property (not being dwelling-houses or other buildings from which revenue is derived by any harbour authority) which forms part of, or is used for the purpose of, harbour works; railways or railway buildings; gaols or convict stations; immovable property occupied by the Crown for naval or military purposes, provided the property belongs to the Union Government or Provincial Administration.	
Assessed upon the rateable value of immovable property (i. e. site and building valuations). Ord. No. 17 of 1917 gives municipalities the power to impose general or special rates on the site value of land only.			Places used for public worship and educational purposes, or cemeteries.	
			Land used exclusively for public schools or colleges, public libraries or museums, art galleries, etc.	
			Land used for hospitals, charitable institutions, etc.—	
			(*a*) supported by the Union Government or Provincial Administration, or	
			(*b*) supported by public charity.	
			Lines of telegraph and telephone, etc.	
			Land set out as a mining area.‡	
			Land used as public slaughter-houses.	
			In Cape Town Houses of Parliament and immovable property under the control of the Railway Department (exclusive of dwelling-houses) in the docks area.	
			National botanical gardens and improved Government forest lands, and land and buildings (other than those used for trading purposes) forming portions of Groot Schuur estate set aside as a park.	No. 12 of 1916.
			Land, together with buildings, vested in trustees on behalf of any sporting organizations and used solely for athletic sports and pastimes or leased from municipal councils or from the Imperial or Union Government or the Provincial Administration for such purpose (excluding racecourses).	No. 25 of 1920.
Emergency rate..... (Applicable to Wynberg, East London, Kimberley, and Port Elizabeth, or any other municipality, except Cape Town, approved of by the Administrator.)	2d.	—	—	No. 13 of 1921.
Water rate (Cape Town) Assessed upon the value of rateable property.	½d.	—	—	No. 4 of 1917.

* A Provincial Immovable Property tax of ⅝d. in the £1 is collected on the valuation of all immovable property, with certain exemptions, within the Cape of Good Hope and paid into the Provincial Revenue Account.

† Municipal Councils in the Cape of Good Hope Province cannot exceed these rates nor levy a special rate unless the enrolled voters by appeal to them have determined that a higher rate be levied.

‡ Ordinance No. 4 of 1913 provided that rates were to be recovered on houses and buildings within any mining area within the Municipality of Kimberley.

MUNICIPAL RATING—*continued.*

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances.
Natal.—				
General rate..... Water rate..... Assessed upon immovable property as a whole or upon land and buildings separately.	Amount assessed annually according to the estimated amount of money required for service of municipal year.	—	Land and/or buildings solely appropriated to, or held in trust for, religious, educational, or charitable purposes, burial ground, infirmary, or hospital; land let under agricultural lease and used only for agricultural, pastoral, and like purposes.	No. 19 of 1924.
Transvaal.—				
Original rate (compulsory) on the site value of land	1d.	*5s.	Any interest in land the property *and* in the occupation of the Crown (in the cases of the magisterial districts of Boksburg, Germiston, Johannesburg, and Krugersdorp, the municipality of Klerksdorp, and Warmbaths any interest in land held by the Crown), provided that all property vested in the Governor-General-in-Council for railway purposes shall, so far as the same is used for residential purposes by persons employed by the South African Railways be deemed to be rateable property.	No. 6 of 1912 as amended by No. 1 of 1916, No. 4 of 1917, No. 12 of 1918, No. 9 of 1919. No. 9 of 1921, an No. 9 of 1925.
An *additional* rate may be levied upon the site value of land up to..	6d.	—	Any interest in land used exclusively for public worship or for schools registered in the office of the Department of Public Education or boarding-houses or hostels maintained in connexion with such schools.	
A rate of an amount in the £1 equal to or less than the additional rate may be levied upon the value of improvements, provided that—				
(1) where the rate, which is levied upon the value of improvements, is equal to the additional rate, the rate shall not exceed in the aggregate.....	3d.	—	Any licence or right to dig for or prospect for precious stones or metals on any portion of land assigned for that purpose; and any portion of land held or occupied exclusively for the exercise of such rights; provided that no land or buildings used for residential purposes or for purposes not incidental to mining operations, whether by persons engaged in mining operations or otherwise, shall be deemed to come within the exception.	
(2) where the rate, which is so levied, is less than the additional rate, such additional rate shall not be of a greater amount in the £1 than is necessary, together with the rate upon the value of improvements to produce a sum equal to the sum which would be produced by a rate of 3d. in the £1 on the site value of land and the whole value of the improvements thereon taken together.			Any interest in land laid out and used for the purpose of sport or recreation and controlled in accordance with rules approved by the local authority in so far as such interest is held for such purposes as aforesaid, provided that an interest in land used as a recreation ground conducted for profit or as a racecourse shall not be entitled to the benefit of this exemption.	
The Administrator may sanction an additional rate higher than that stipulated.			Land being not less than one morgen in extent, *bona fide* and exclusively used as agricultural land, is rated upon half its agricultural value.	
			Land within the jurisdiction of a health committee, held by the Governor-General or the Government in trust for any future municipal council, or reserved under law for the use and benefit of a health committee.	No. 9 of 1925.

* Minimum charge in respect of any property or interest on rates imposed

MUNICIPAL RATING—*continued.*

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances.
Orange Free State.—				
General rate.....	*1¼d.	†£1	Land or immovable property belonging to the Crown or the Government of the Union or the Provincial Administration; churches or other buildings used for religious worship or educational purposes; libraries, schools, etc.; any land or buildings owned, leased, or held by agricultural societies; burial grounds; hospitals or other buildings supported by public charity or used exclusively for charitable purposes; any land held in trust for religious purposes.	No. 4 of 1913, as amended by No. 14 of 1914, No. 8 of 1917, No. 12 of 1920, No. 16 of 1921, No. 11 of 1922.
Water rate.....	*1½d.	†£3		
Assessed upon immovable property (site and buildings) or on valuation of land only. *Special rates* may also be imposed by a meeting of registered owners to such amount and for such period as the meeting may lay down.			These exemptions do not apply to private tenants of Crown or Government property.	
			Exemption *may* be granted by town council if satisfied that any property is supported by public charity or used exclusively for charitable or religious purposes and that any profits derived therefrom are also devoted to such purposes.	No. 14 of 1923.
Sanitary rate (Bloemfontein only)	*2d.	—	—	No. 4 of 1913.

* These are the maximum rates leviable by a town council without consulting the registered owners of immovable property—with the consent of registered owners the rates can be increased to any figure specified in such consent.

† The minimum amounts shown are leviable only when specially authorized by a meeting of registered owners.

§ 3. History and Development of Four of the Principal Towns.

1. **Johannesburg.**—When President Kruger in 1886 proclaimed the farms upon which Johannesburg now stands as a public diggings there were not more than fifty persons, mostly drawn thither by the reported discovery of gold, resident in the valley. From a mining camp the place rapidly developed into a straggling mining town, and within a couple of decades into a progressive modern city. To-day, less than forty years after its foundation, Johannesburg is the largest town in the Union, and in point of buildings, streets, open spaces, and other civilized amenities bears comparison with any of the older established towns in the country.

The phenomenal growth of the town can be gathered from the following population figures. A census taken by the Stadsraad in 1896 returned the population as 50,907 Europeans and 51,171 non-Europeans (Asiatic, coloured, and native). In 1902, shortly after the conclusion of the South African War, a police census gave the population as 61,780 Europeans and 47,672 non-Europeans. The census of 1904 showed Europeans 83,363 and non-Europeans 72,279. In 1911 the Europeans numbered 119,953 and non-Europeans 117,151, whilst the census of 1921 indicated an increase to Europeans 150,286 and non-Europeans 132,685. The estimated population at the 30th June, 1925, was 162,924 Europeans and 139,156 non-Europeans. The preliminary figures of the 1926 census show 168,321 Europeans.

In the main, Johannesburg owes its existence and development to the gold mining industry. The fields upon which it stands are still the largest and richest in the world, but hand in hand with that industry the town is rapidly developing into a centre for agricultural and ranching products, and as the northern areas are further exploited the progress of Johannesburg is further assured. Its position in close proximity to the iron fields and the large Witbank coal field of the Transvaal foreshadows immense possibilities of development, and stability for industries when the gold-bearing areas have ceased to produce on the present scale.

The industrial development of the town since 1915 has been truly remarkable. In the industrial area described as *Southern Transvaal*, which comprises Johannesburg and the neighbouring district dependent upon Johannesburg, the number of factories increased from 862 in 1915 to 1,748 in 1921; the value of machinery and plant from £7,114,877 to £11,402,201, and the total number of employees from 29,050 to 56,076. The wages and salaries paid which in 1915 were £3,628,560, increased to £8,578,781 in 1921, and the gross value of output from £12,958,059 to £31,080,957.

Electricity and gas for lighting and power are provided primarily by municipal plant, and in addition the lines of the Victoria Falls and Transvaal Power Co., Ltd., which possesses large generating stations, radiate all over the Reef. The tramway system, which is municipally owned, has an aggregate length of 73 miles, and during the year 1922–23 carried 54,032,459 passengers. Water is supplied by the Rand Water Board, a body constituted in 1903 to supply the municipalities along the Reef with water in bulk. The quantity of water drawn from boreholes available to the Board in 1905 was 2½ million gallons per diem, and was augmented in stages in subsequent years by an additional 7½ million gallons. The construction recently of a barrage across the Vaal River has made possible a further supply of 20 million gallons, 5 millions having been made immediately available as an initial quantity from this source.

Johannesburg is possessed of some remarkably fine buildings, the most outstanding amongst them being the Corner House, the headquarters of the principal mining groups, the Chamber of Mines, the Stock Exchange, the Town Hall, Law Courts, and the South African Institute for Medical Research. The University buildings when completed will add another imposing addition to the already considerable number of notable structures.

The educational facilities of the town are as good as any to be found elsewhere in the Union. In addition to the numerous schools, both Government and private, providing primary education, there are a considerable number of well-known secondary schools teaching up to the matriculation standard.

In 1922, the University College, which had developed out of formerly existing technological institutions, was incorporated as the Witwatersrand University. The site for the University at Milner Park was given by the Johannesburg Municipality, which, together with commercial and industrial organizations and private individuals, has donated funds towards the cost of erecting the necessary buildings.

The town is well equipped with sports grounds, swimming-baths, theatres, and public libraries; in fact there is no amenity of modern life that does not find its place in Johannesburg.

2. **Kimberley.**—The city of Kimberley, which now includes the former township of Beaconsfield, was formerly known as New Rush or Colesberg Kopje, and named after the late Lord Kimberley, Colonial Secretary in the early seventies of last century. It is the capital of Griqualand West, situated 647 miles from Cape Town, and its elevation above sea level is 4,012 feet. The total population, including natives in the mine compounds, is approximately 40,000. The present site of Kimberley was, in the year 1870, represented in a photograph by a thorn tree, a Bushman, and a kopje.

The news of the discovery of the Kimberley Mine, on Sunday, 16th July, 1871, induced practically all those who were digging for diamonds on the banks of the Vaal to rush to the newly discovered mine. The republic of the Orange Free State claimed dominion over these diggings; they were also claimed by a Griqua chief, Nicholas Waterboer, as a portion of his possessions. On the 27th October, 1871, as the result of protracted negotiations, Waterboer's territory, including the diamond area, was proclaimed a British colony, under the name of Griqualand West, and some time later the Government of the Orange Free State was awarded a solatium of £90,000, whilst Waterboer was granted a handsome pension.

Government Proclamation No. 22 of 1873, dated the 5th July, 1873, promulgated in a *Government Gazette Extraordinary* on the 18th July, 1873, set forth ". . . . the encampment and town heretofore known as De Beers New Rush, the Colesberg Kopje No. 2, or Vooruitzigt, shall henceforth be and be designated the town of Kimberley. . . . ."

The Imperial Government, within a few years, found difficulty in governing the Crown Colony of Griqualand West, and made overtures to the Cape Government to annex the Province, and the Cape Parliament passed Act No. 39 of 1877 making provisions for the annexation of Griqualand West.

Three years later the Legislative Council of Griqualand West carried a motion for annexation, and on the 18th October, 1880, the Province of Griqualand West became an integral portion of the Cape Colony.

The drawback at the diggings, which was severely felt at the outset, was the want of water, as there was only a meagre supply from Dutoitspan and from a few fountains that soon dried up.

Towards the close of the seventies a scheme to pump water from the Vaal River, seventeen miles distant, was laid before the Municipal Council of Kimberley, and that body in 1880 granted concessionary rights to the Kimberley Waterworks Company, Limited. In 1883 the company commenced the supply of water, which it controlled until 1921, when the city council purchased the undertaking.

Kimberley was one of the first towns in any part of the world to have electric street lamps, a considerable number of which were installed in the year 1885. The spirit of enterprise then evinced has continued to survive, and excellent progress has been made in matters affecting the public welfare. A considerable portion of the city has been sewered, and the system is being gradually extended.

Kimberley is provided with an excellent electric tramway service, owned and controlled by the De Beers Consolidated Mines, Limited, and the track now laid and operated totals 34½ miles. 1½d. stages are in vogue, and the fares, having regard to the length of the stages, are the cheapest in South Africa.

The city is exceedingly well served with educational establishments, and possesses several imposing colleges and schools, the principal being of recent design and modern construction, standing in their own grounds. There is a central public library as well as one in Beaconsfield, controlled by committees appointed by the subscribers ; also a splendid museum, controlled by a public committee. The handsome building which houses the museum was presented to the town by Mrs. Margaret McGregor, in memory of her late husband, Councillor Alexander McGregor, who was mayor in the year 1886. Kimberley is also the seat of the Griqualand West Local Division of the Supreme Court of South Africa, and this High Court has jurisdiction over an immense area.

The soil of Griqualand West is very fertile, and several irrigation works for the utilization of the waters of the Vaal, Modder, and Riet Rivers by means of natural gravitation schemes have been completed. Further extensive irrigation schemes are under consideration by Government along the Vaal River between Kromellenboog and Delport's Hope, embracing a frontage of 130 miles. Heavy crops of cotton of the best grades have been grown in and around Kimberley, and cotton plantations are being rapidly extended.

Kimberley is a great sporting centre, and the amenities to be enjoyed include practically every form of recreation, provided by the many athletic clubs. The invigorating quality of the dry air during the winter months is well known, and a holiday spent in and around Kimberley, especially during the shooting season, is a most delightful experience.

3. **Port Elizabeth.**—Historical records almost unquestionably point to Algoa Bay as the excellent harbour into which Bartholomew Diaz sailed on the 14th September, 1486, on his memorable voyage of discovery, and which he named "Bahia da Logoa," and St. Croix as the island where in accordance with his custom he erected a cross.

The present day history of the port commences with the establishment of a British military post in 1789, and the construction of a fort, named Fort Frederick, on high ground overlooking the bay and protecting the landing.

In 1812, after the district had been cleared of hostile Kaffirs, a trading station was established to which was attached a tannery, cooperage, and saw-mill. When the British settlers landed in 1820 the settlement consisted of about a dozen dwellings in addition to the military buildings, some poor farmhouses, and a few mud huts.

The subsequent development of the surrounding districts and the admirable geographical situation of the port soon led to its rapid growth, and it early acquired the position of the premier produce centre of the Cape Colony.

The early, hazardous methods of landing and loading merchandise by means of surf-boats on the beach were soon succeeded by the construction of jetties, which made it possible for lighters to discharge and load freight with a minimum of risk and a great increase in efficiency. The capacity of some of these lighters at the present time is 200 tons burden.

Railway construction into the interior, commenced in 1873, still further contributed to the rise and importance of the town, and during the early years of the Witwatersrand gold mining industry the greater portion of the material and supplies for developing the mines was landed and conveyed through the port, which even at that time, but more so to-day, was well equipped with extensive warehouse and ground accommodation to facilitate the sorting and handling of merchandise.

A breakwater of solid concrete 8,500 feet in length is under construction which when completed will ensure the rapid loading and unloading of vessels at all times and in all weathers.

From the few small buildings and collection of mud huts which formed the settlement a century ago, Port Elizabeth has expanded into a modern town which with its suburbs, Walmer and Korsten, had a European population in 1921 of 26,228 persons. In addition, there were 20,395 non-Europeans, making a total of 46,623 all races. Contrasted with the year 1865, when the first population census of the Cape Colony was taken, the inhabitants then only numbered 6,886 Europeans and 1,814 non-Europeans. The preliminary results of the 1926 census show the European population of the same areas as 33,071.

The principal street boasts of some remarkably fine buildings, and the residential site on the hill is well situated and picturesquely laid out.

The water-supply of the town is owned and operated by the municipality. The supply is drawn from a catchment area situated within the district of Uitenhage. The main storage reservoirs, three in number, impound a total of 337 million gallons of water, and the source of supply is so dependable that during periods of severe drought the level of the reservoirs has been but little affected.

A comprehensive scheme of water-borne sewerage has been authorized at a cost of £500,000. The sum already allocated to sewer work alone amounts to £323,000.

The electrical plant, also a municipal undertaking, was first installed in 1905, but had to be considerably enlarged in 1911. The rapid industrial growth of the town has necessitated

still further expansion of the works, and considerable additions were put in hand and completed in 1924.

The development of industries in recent years is little less remarkable than the growth of the town itself. Tanneries and boot factories on an unpretentious scale had been in existence for a number of years, but during the Great War, when freight and materials were difficult to obtain, large works for the production of high-class footwear sprang into being. Port Elizabeth can easily lay claim to being the centre of the leather and boot industry of the country. Factories producing foodstuffs, furniture, etc., and using modern machinery are also located in the town, and only recently the Ford Car Company established an assembling factory, where all Ford cars designed for use in South Africa are put together.

The tramway system, established in 1897, is owned by a private company, which operates 10 miles of route. The lines extend from the north to the south end of the town, with an extension to the popular holiday resort at Humewood. The residential part of the hill is served by a circular route.

The town is well served by educational institutions providing both primary and secondary education. The Collegiate High School for Girls and the Grey Institute High School for Boys are both widely-known schools throughout the Eastern Province.

The Public Library, founded in 1848, occupies a spacious building in the Market Square, and contains over 47,000 volumes and 3,000 pamphlets. The present building was opened in 1902 and cost £32,000. A smaller library at Northend contains 8,000 volumes.

4. **East London.**—The history of East London commences when in 1846 troops and stores were landed at the mouth of the Buffalo River in connexion with the prosecution of the seventh Kaffir war. The stores were then landed, as was merchandise for a considerable number of years afterwards, by means of surf boats.

As European civilization spread eastwards and Kaffraria became settled, King William's Town rose into commercial prosperity, and the settlement of the German Legion within the vicinity as agriculturalists having proved a success, the Government, owing to increasing shipping requirements, called for and accepted plans for the construction of a breakwater. The first stone of this structure was laid in 1872, and coincides with the turning of the first sod of the East London–Queenstown section of railway.

Until 1874 only very small vessels were able to enter the river but between 1874 and 1875 the first steam vessel on her voyage to and from Natal, and a number of larger sailing vessels crossed the bar and were berthed inside by the aid of a tug provided for towing purposes. Dredging was commenced in 1886, and the river is now kept at a uniform depth, which allows all but the largest mail steamers to enter.

The settlement, at first established on the west bank of the river, had extended by 1880 to the east side, and in that year became a corporate town by Act of Parliament. In 1925 the town possessed 48 miles of macadamized streets and 54 miles of pavements and hardened footpaths. It is equipped with municipal abattoirs, up-to-date steam disinfecting plant, clinic for infectious diseases, and isolation hospital. A scheme of water-borne sewerage estimated to cost £285,000 was commenced in 1923 and is nearing completion.

The municipal electric supply scheme, inaugurated in 1899, was carried out simultaneously with the construction of an electric tramway system, and provides power for lighting, tramway services, and harbour requirements.

The water supply is obtained from an impounding reservoir constructed on the Umzoniana River, with a storage capacity of 275 million gallons. This, with the other reservoirs, gives the city a total storage capacity of 371 million gallons.

The population, which in 1875 numbered 833 Europeans and 2,134 non-Europeans, had increased to 4,760 Europeans in 1891, the non-Europeans remaining stationary. Twenty years later, in 1911, the Europeans totalled 12,522 and the non-Europeans 8,770, while the census of 1921 showed the Europeans to have increased to 16,944 and the non-Europeans to 12,339. These figures are significant as showing the steady and rapid progress of the port and the great development taking place in the interior. The preliminary figures of the 1926 census show a European population of 18,455 and a non-European of 17,802.

The town possesses two public libraries, maintained by subscriptions and Government grants, and an excellent municipal market. The Frere Hospital, situated within an extensive enclosure, is a well-equipped and modern institution.

Within recent years the popularity of the town as a seaside resort has increased tremendously.

§ 4. Local Governing Bodies.

1. **Municipalities.**—The following table gives a list of all municipalities proclaimed in each Province, together with particulars as to population, revenue, expenditure, rateable valuation, indebtedness, and the mileage of streets and roads. The information contained in the table is derived from returns furnished under the *Statistics Act.*

(i) MUNICIPALITIES OF CAPE OF GOOD HOPE, 1923–24.

Name.	Population, 1921.		Revenue.	Expenditure.	Rateable Valuation.	Indebtedness at End of Year.	Length of Streets and Roads.
	European.	Other.					
			£	£	£	£	Miles.
Aberdeen	1,774	932	2,498	2,836	175,937	531	15
Adelaide	1,080	1,383	4,091	6,165	168,696	8,639	24
Adendorp	286	386	432	404	20,346	667	5
Albertina	687	146	585	845	52,198	317	9
Alice	773	1,678	6,178	6,894	123,270	17,071	18
Aliwal North	2,444	3,853	20,043	20,335	378,643	51,229	10
Barkly East	993	906	3,556	3,150	135,181	8,171	10
Barkly West	513	1,565	2,801	3,241	52,674	7,000	5
Barrydale	484	371	210	200	41,153	—	4
Bathurst	188	413	526	533	26,307	—	12
Beaufort West	3,063	3,141	13,036	11,854	438,744	29,054	8
Bedford	912	1,239	2,551	2,117	90,808	11,350	18
Bredasdorp	1,050	961	3,952	3,574	147,218	20,734	10
Britstown	940	552	2,074	1,858	90,257	2,882	1½
Burgersdorp	1,676	1,733	12,446	13,404	178,280	33,280	5
Butterworth	572	478	1,556	1,409	114,948	100	11½
Cala	686	670	936	846	75,950	14	12
Caledon	1,501	1,327	21,023	20,272	221,340	21,680	5
Calitzdorp	1,167	560	1,686	1,825	180,512	310	7½
Calvinia	982	1,296	4,330	2,454	169,754	6,249	8
Cambridge	3,430	1,460	5,788	5,788	502,076	5,128	39
Cape Town	101,685	81,672	1,335,548	1,178,644	31,073,028	6,588,241	290
Carnarvon	957	1,003	2,636	1,811	115,223	2,350	3½
Cathcart	825	1,356	3,300	3,300	88,870	8,160	11½
Ceres	1,134	1,707	3,788	4,101	193,240	8,345	6
Clanwilliam	373	678	1,349	1,092	36,904½	2,319	2
Colesberg	1,001	1,563	4,375	4,526	160,742	1,239	9
Cradock	3,275	3,532	19,641	16,969	421,341	24,454	17
De Aar	1,299	2,234	4,192	3,634	159,291	5,078	14
Dordrecht	1,049	1,241	5,730	6,203	157,320	9,967	8
Douglas	804	825	1,892	2,001	87,476	795	18
Durbanville	483	436	1,831	1,935	95,695	4,756	7
East London	16,944	12,839	247,601	253,653	3,689,813	770,261	47½
Elliot	767	461	1,808	1,919	112,270	3,411	13
Engcobo	243	208	220	60	46,285	—	4
Fort Beaufort	1,039	2,949	4,974	4,901	98,891	18,510	6
Fransche Hoek	615	444	998	958	79,570	307	7½
Fraserburg	725	488	2,038	1,675	107,797	5,051	1
George	2,927	1,879	4,543	4,010	245,386	15,808	16
Graaff-Reinet	4,516	4,763	14,913	15,062	475,456	41,955	13½
Grahamstown	7,237	7,672	39,505	38,930	1,023,883	96,894	79
Greyton	458	503	364	376	32,129	287	5
Griquatown	549	567	1,878	1,729	28,810	3,513	8½
Hankey	290	1,133	903	981	41,216	4,848	10
Hanover	680	496	1,349	1,246	77,480	2,800	5½
Heidelberg	924	1,091	2,617	1,867	119,698	2,691	10
Hermanus	884	116	2,076	4,502	80,151	2,000	10
Hopefield	439	530	1,302	1,039	52,220	2,203	6½
Hopetown	711	674	2,746	2,701	81,284	5,739	2½
Hofmeyr	489	376	914	906	47,585	650	4
Humansdorp	963	513	2,438	3,601	105,938	1,722	8
Idutywa	299	464	1,161	943	80,581	1,500	9
Indwe	841	919	4,343	4,814	80,900	16,140	5½
Jansenville	646	696	1,775	1,297	70,649	644	5
Keiskama Hoek	524	1,506	1,094	1,030	65,974	—	5½
Kenhardt	484	519	1,235	1,434	52,366	1,346	5
Kimberley	17,653	21,361	195,781	185,745	2,487,060	523,880	93
King William's Town	5,928	3,721	88,931	83,918	906,190	302,536	27
Kokstad	1,155	2,165	6,813	6,171	299,851	19,938	22
Komgha	416	388	1,233	1,048	42,726	—	4½
Knysna	1,172	604	9,461	9,617	138,780	1,922	10
Kuruman	706	1,142	4,621	3,056	56,565	16,447	2½
Lady Frere	273	259	739	743	37,556	4	5
Lady Grey	873	841	2,797	2,780	95,537	13,080	12
Ladismith	974	528	2,237	2,237	144,261	5,670	5
Laingsburg	965	610	1,539	1,473	107,052	1,450	4
Loxton	471	173	1,464	1,690	53,575	7,610	—
Maclear	733	862	1,624	2,266	104,021	391	4
Mafeking	1,669	1,533	9,392	8,612	222,450	32,506½	10
Malmesbury	2,254	1,831	7,672	7,181	297,802	45,438½	14
Matatiele	691	1,030	4,869	4,959	176,000	8,208½	17
McGregor	360	613	744	702	57,000	279	11
Middelburg	2,103	2,277	10,370	10,210	223,899	23,402	14
Molteno	1,060	1,209	5,053	5,144	167,798	17,167	8½
Montagu	1,663	862	5,897	6,955	220,178	26,687	12
Moorreesburg	936	441	2,194	2,152	142,371	350	5½
Mossel Bay	2,638	3,088	18,267	21,335	537,576	93,786	26
Murraysburg	750	557	1,220	969	95,783	2,026	½
New Bethesda	337	429	364	322	43,530	—	2½
Oudtshoorn	5,552	5,166	43,784	41,406	1,011,901	136,664	42
Paarl	5,760	6,638	17,225	19,934	1,090,710	96,265	19½

(i) MUNICIPALITIES OF CAPE OF GOOD HOPE, 1923-24—*continued.*

Name.	Population, 1921.		Revenue.	Expenditure.	Rateable Valuation.	Indebtedness at End of Year.	Length of Streets and Roads.
	European.	Other.	£	£	£	£	Miles.
Pearston	566	565	1,090	1,276	62,931	4,039	8
Peddie	389	294	921	883	45,918	730	5
Petrusville	482	374	1,103	1,005	50,500	3,370	4¾
Philipstown	759	522	2,019	1,471	56,000	3,455	6
Piquetberg	733	832	1,686	1,440	63,868	1,132	20
Port Alfred	1,075	1,853	5,756	5,354	179,259	12,905	25
Port Elizabeth	23,935	12,899	297,031	298,806	5,929,317	1,467,893	78
Porterville	944	481	1,802	1,515	94,042	5,544	10
Prieska	1,114	935	2,247	2,506	115,483	970	4
Prince Albert	1,148	844	1,481	2,159	206,752	3,710	41
Prince Alfred's Hamlet	356	289	299	308	37,059	1,135	4½
Queenstot	5,231	7,637	49,021	47,529	870,146	206,820	30
Richmonwn	769	805	1,555	1,450	98,650	—	20
Riversdd	1,474	1,409	4,914	4,916	176,004	16,957	16
Robertsale	2,587	1,856	7,987	8,089	368,876	43,575	13
Seymouon	151	411	511	489	23,021	1,060	1½
Simonstr	3,005	2,404	18,474	13,144	275,769	27,844	12
Somerseown	2,167	2,901	14,477	13,059	297,441	23,750	11
Somerset East	2,342	1,506	26,132	23,924	450,000	43,076	40½
Somerset Strand	1,505	1,473	7,142	7,255	295,675	9,317	18
Stanordt West	434	202	333	256	27,475	—	4¾
Stellenbosch	3,695	3,610	24,554	18,247	760,332	33,644	21
Sterkstroom	971	1,043	2,835	3,008	105,486	5,619	5½
Steynsburg	1,222	806	3,377	3,160	133,708	6,163	7
Steytlerville	705	622	640	537	73,589	922	7
Stutterheim	905	2,223	3,109	3,046	147,457	10,429	4¾
Strydenbug	414	185	386	352	26,815	865	3½
Sutherland	544	273	947	868	70,939	826	8½
Swellendam	1,619	1,324	3,877	4,611	212,762	7,692	14
Tarkastad	947	1,250	5,475	4,304	121,796	10,444	6½
Tulbagh	654	396	1,520	1,707	71,739	6,165	12
Uitenhage	7,815	6,399	42,513	42,145	647,215	93,850	26
Umtata	1,639	1,859	14,809	12,516	362,565	41,442	37
Uniondale	642	725	1,468	2,668	72,000	3,685	4½
Upington	1,259	1,364	2,709	2,726	209,052	2,421	2½
Van Rhynsdorp	493	313	625	790	45,098	—	7
Venterstad	414	547	1,358	1,236	48,890	416	5
Victoria West	1,016	971	3,743	4,574	145,841	84,252	6½
Villiersdorp	624	138	582	374	62,500	2,013	12
Vosburg	396	182	777	685	29,622	1,057	4½
Vryburg	1,477	1,919	7,868	9,611	190,730	44,184	14
Walmer	1,339	733	5,173	4,979	281,190	7,985	28
Wellington	2,666	2,502	13,480	12,922	355,098	31,398	23½
Williston	354	375	1,254	1,214	37,317	1,433	10½
Willowmore	1,093	942	2,276	2,126	102,835	3,282	4
Windsorton	597	1,032	1,880	1,765	31,308	1,026	15
Worcester	3,894	4,747	17,330	16,486	429,000	63,686	17
Wynberg	9,999	11,970	89,854	91,379	2,105,300	598,375	65

(ii) **MUNICIPALITIES OF NATAL, 1923-24.**

			£	£	£	£	Miles.
Dundee	1,586	2,201	18,622	17,188	397,330	54,680	36
Durban	47,358	48,183	1,459,974	1,382,520	17,387,070	4,774,688	153
Estcourt	746	1,003	12,036	13,109	201,241	45,815	11
Greytown	1,198	2,189	18,966	23,552	285,774	58,912	21
Ladysmith	3,221	3,562	35,948	34,806	725,725	118,739	22
Newcastle	2,057	2,201	17,008	15,382	379,520	36,491	23½
Pietermaritzburg	17,492	17,668	263,806	246,370	4,676,000	1,092,530	130
Utrecht	665	1,544	4,102	2,750	149,752	10,193	31
Vryheid	2,062	1,957	18,428	16,005	510,950	85,582	32

(iii) **TOWN COUNCILS OF TRANSVAAL, 1923-24.**

			£	£	£	£	Miles.
Barberton	1,048	1,621	11,625	12,076	134,540	16,862	39
Benoni	14,483	33,158	121,602	110,663	2,978,476	133,841	68¾
Bethal	1,252	944	8,453	8,312	199,620	19,592	37
Boksburg	12,416	25,563	87,710	90,762	1,831,033	33,072	66½
Brakpan	7,108	17,556	64,090	56,240	1,020,731	93,636	53
Ermelo	2,716	1,839	15,116	13,139	513,935	25,275	54

(iii) TOWN COUNCILS OF TRANSVAAL, 1923-24—*continued.*

Name.	Population, 1921.		Revenue.	Expenditure.	Rateable Valuation.	Indebtedness at End of Year.	Length of Streets and Roads.
	European.	Other.					
			£	£	£	£	Miles.
Germiston	15,697	26,658	118,185	121,813	2,738,677	140,727	93
Heidelberg	2,086	1,324	15,110	13,049	374,258	33,881	22
Johannesburg	150,286	132,685	2,478,198	2,410,002	50,680,937	3,930,090	770
Klerksdorp	3,121	2,565	22,274	24,176	375,622	35,193	25
Krugersdorp	13,439	29,077	95,889	107,639	1,967,802	193,329	60
Middelburg	2,705	2,338	16,768	16,549	452,975	35,146	28
Pietersburg	2,452	3,611	29,590	26,461	620,068	27,893	37
Potchefstroom	8,189	5,176	43,017	40,130	930,600	60,849	42¾
Pretoria	36,675	25,359	570,557	572,206	8,786,681	1,717,100	178½
Roodepoort-Maraisburg	7,140	16,942	53,741	48,772	1,195,230	24,893	91
Rustenburg	1,734	1,665	10,152	10,387	470,817	21,593	30
Springs	4,488	14,912	65,732	59,445	1,595,014	86,640	23
Standerton	2,100	1,899	21,942	21,893	384,570	60,715	36
Vereeniging	1,843	3,590	20,295	20,417	642,713	60,835	17
Volksrust	2,218	1,099	9,700	9,340	317,447	13,553	26
Witbank	1,919	5,193	13,345	12,132	506,480	30,912	10

(iv) **MUNICIPALITIES OF ORANGE FREE STATE, 1923-24.**

			£	£	£	£	Miles.
Bethlehem	3,383	2,982	31,534	31,530	619,230	149,797	15
Bethulie	1,308	1,207	2,213	8,882	129,777	59,151	7
Bloemfontein	17,711	18,780	275,009	270,079	3,876,860	1,208,890	45
Boshof	1,285	751	1,887	1,065	137,000	756	7½
Bothaville	608	511	2,051	1,892	96,341	4,774	7½
Brandfort	1,414	1,107	7,261	7,288	233,595	27,004	10
Clarens	205	100	632	279	2,530	1,966	17
Clocolan	1,029	832	4,706	4,729	148,341	9,549	19
Dealesville	459	168	958	773	35,082	1,055	4½
Dewetsdorp	873	732	3,138	2,075	90,738	8,151	15
Edenburg	840	765	2,660	2,648	83,529	5,380	6
Edenville	447	204	580	834	45,565	436	12
Excelsior	485	322	2,311	2,327	75,427	8,917	5
Fauresmith	936	1,078	2,781	2,981	113,650	3,706	10
Ficksburg	1,987	1,328	8,373	4,365	237,640	19,610	27
Fouriesburg	532	416	1,692	1,607	64,826	4,984	23
Frankfort	1,434	1,306	8,567	7,541	264,966	48,815	14
Harrismith	2,553	3,681	30,177	31,680	628,101	105,908	17
Heilbron	1,514	1,537	13,066	12,625	323,651	32,837	12½
Hobhouse	388	90	466	484	33,362	696	2
Hoopstad	326	337	400	288	34,551	933	5
Jacobsdal	374	296	1,011	910	46,075	2,624	4
Jagersfontein	1,729	2,285	4,105	3,782	184,214	2,251	6½
Kestell	577	511	2,796	2,559	81,770	6,258	13½
Koffyfontein	1,253	878	2,847	2,836	100,558	2,658	3½
Kroonstad	4,291	5,045	55,637	56,063	830,000	219,962	6
Ladybrand	2,050	1,614	8,780	4,788	264,677	15,540	22
Lindley	982	758	6,326	8,071	152,460	24,244	12
Luckhoff	361	193	811	681	29,172	2,872	7
Marquard	703	470	2,745	2,312	107,527	8,619	20
Memel	317	358	2,147	1,597	81,561	5,145	10
Odendalsrust	386	184	791	762	30,390	2,216	17½
Parys	2,641	1,012	17,444	18,254	366,382	62,921	35
Paul Roux	579	237	1,663	1,614	64,592	6,000	4½
Petrusburg	553	236	930	878	43,160	1,012	10
Petrus Steyn	496	306	1,415	1,343	29,620	—	11
Philippolis	810	506	1,978	1,810	92,665	2,859	4
Reddersburg	817	353	2,555	2,404	103,884	1,887	7½
Reitz	1,060	1,011	5,855	5,325	201,613	25,535	12
Rosendal	327	103	534	599	31,225	423	10
Rouxville	682	650	2,175	2,081	116,810	3,033	12
Senekal	1,198	1,243	9,178	9,660	212,385	21,855	6½
Smithfield	974	684	4,592	4,330	127,639	7,951	8½
Springfontein	772	779	3,486	2,716	92,540	5,354	2
Steynsrust	520	312	2,566	1,884	71,840	6,133	9
Thaba 'Nchu	628	83	2,711	2,803	98,305	11,720	6
Theunissen	431	674	2,075	1,726	74,509	11,313	6½
Trompsburg	728	466	2,728	2,605	103,673	6,768	6½
Ventersburg	592	413	1,267	1,059	67,182	2,844	5½
Villiers	420	267	1,345	1,193	72,900	1,994	12
Vrede	1,425	1,653	13,765	14,171	314,957	48,478	20
Vredefort	390	526	1,215	1,537	63,000	685	4½
Warden	598	314	1,428	1,571	76,855	200	9
Wepener	1,114	859	4,059	3,232	143,810	6,840	18
Winburg	1,243	1,826	10,669	9,677	205,665	21,897	9
Zastron	1,765	1,017	5,336	5,613	202,605	8,782	13
Cornelia, Hertzogville, Viljoenskroon, Verkeerdevlei	Figures not available.						

2. **Other Local Governing Bodies.**—The subjoined lists give the names of all local governing bodies in the Union, other than municipalities, which are enumerated separately in the preceding section.

CAPE OF GOOD HOPE.

VILLAGE MANAGEMENT BOARDS.

Alexandria.	Frankfort.	Marydale.	Ritchie.
Alicedale.	Garies.	Merweville.	Rooigrond.
Amalinda.	Goodwood.	Napier.	Salem.
Bellvale.	Gordon's Bay.	Niekerks Hope.	Springbok.
Bellville.	Gouda.	Nieuwoudtville.	Tylden.
Berlin.	Haarlem.	Olifants Hoek.	Ugie.
Blinkwater.	Hanover.	Pacaltsdorp.	'Umnxesha.
Boetsap.	Herbertsdale.	Parow.	Van Wyksdorp.
Bonnievale.	Hertzog.	Paterson.	Vredenburg.
Brand Vlei.	Hoedjes Bay.	Pooles Bay.	Warrenton.
Braunschweig.	Jamestown.	Postmasburg.	Whittlesea.
Breidbach.	Joubertville.	Rawsonville.	Willemsmit.
Burgerville.	Keimoes.	Rhodes.	Wolseley.
Daniels Kuil.	Kei Road.	Riebeek Kasteel.	Wooldridge.
Darling.	Korsten.	Riebeek West.	Zuurbraak.
De Rust.	Loeriesfontein.	Rietbron.	
Dysseldorp.	Macleantown.		

Native Territories.

Bizana.	Mount Fletcher.	Nqamakwe.	Tabankulu.
Cedarville.	Mount Frere.	Port St. Johns.	Tsolo.
Mount Ayliff.	Mqanduli.	Qumbu.	

LOCAL AREAS UNDER ORDINANCE NO. 13 OF 1917.

Arniston.	Fish Hoek.	Karreedouw.	Pinelands Garden City.
Bethalsdorp.	Grabouw.	Kirkwood.	Theronsville.
Blanco.	Hamburg.	Lamberts Bay.	Van Wyksvlei.
Citrusdal.	Hawston-Middelvlei.	Middledrift.	Waterford.
Ferreira Town.	Jeffrey's Bay.	Mossel River.	

DIVISIONAL COUNCILS.

Aberdeen.	East London.	Laingsburg.	Robertson.
Albany.	Elliot.	Maclear.	Somerset East.
Albert.	Fort Beaufort.	Mafeking.	Stellenbosch.
Alexandria.	Fraserburg.	Malmesbury.	Sterkstroom.
Aliwal North.	George.	Maraisburg.	Steynsburg.
Barkly East.	Glen Grey (District Council).	Middelburg.	Steytlerville.
Barkly West.	Gordonia.	Molteno.	Stockenstrom.
Bathurst.	Graaff-Reinet.	Montagu.	Stutterheim.
Beaufort West.	Hanover.	Mossel Bay.	Sutherland.
Bedford.	Hay.	Murraysburg.	Swellendam.
Bredasdorp.	Herbert.	Namaqualand.	Tarka.
Britstown.	Hopetown.	Oudtshoorn.	Tulbagh.
Caledon.	Humansdorp.	Paarl.	Uitenhage.
Calitzdorp.	Jansenville.	Pearston.	Uniondale.
Calvinia.	Kenhardt.	Peddie.	Van Rhynsdorp.
Cape Town.	Kimberley.	Philipstown.	Victoria East.
Carnarvon.	King William's Town.	Piquetberg.	Victoria West.
Cathcart.	Knysna.	Port Elizabeth.	Vryburg.
Ceres.	Komgha.	Prieska.	Williston.
Clanwilliam.	Kuruman.	Prince Albert.	Willowmore.
Colesberg.	Ladismith.	Queenstown.	Wodehouse.
Cradock.	Lady Grey.	Richmond.	Worcester.
De Aar.		Riversdale.	

NATAL.

LOCAL BOARDS.

Charlestown.	Harding.	Paulpietersburg.	Umkomaas.
Eshowe.	Howick.	Richmond.	Verulam.
Geluksburg.	Louwsberg.	South Shepstone.	Weenen.
Glencoe.	Mooi River.	Stanger.	

TRANSVAAL.

VILLAGE COUNCILS.

Amersfoort.	Duivelskloof.	Machadodorp.	Sabie.
Amsterdam.	Dullstroom.	Morgenzon.	Schweizer-Reneke.
Balfour.	Erasmus.	Nelspruit.	Ventersdorp.
Belfast.	Hendrina.	Nigel.	Wakkerstroom.
Bloemhof.	Innesdale.	Nylstroom.	Willemsdal.
Breyten.	Lichtenburg.	Piet Retief.	Wolmaransstad.
Carolina.	Louis Trichardt.	Potgietersrust.	Zeerust.
Christiana.	Lydenburg.		

HEALTH COMMITTEES.

Alberton.	Elsburg.	Koster.	Pilgrims Rest.
Alexandra.	Fochville.	Leslie.	Rodeon.
Brits.	Graskop.	Maquassi.	Trichard.
Coligny.	Greymont.	Messina.	Tzaneen.
Delareyville.	Hartebeestfontein No. 624.	Naboomspruit.	Warmbaths.
Delmas.	Kinross.	Ottosdal.	Witpoort.
Eendracht.			

ORANGE FREE STATE.

VILLAGE BOARDS OF MANAGEMENT.

Bultfontein.	Van Stadensrust.	Waterkloof.	Wesselsbron.
Oranjeville.			

3. **Statistics.**—Owing to the absence in the past of a compulsory system for the collection of detailed information in regard to local bodies, the statistics given in this section, which are derived from returns furnished by the individual local authorities, are necessarily incomplete. In the exercise of powers conferred by the *Statistics Act* of 1914, regulations were issued in 1920 making it obligatory to render these returns and ensuring full and reliable statistics in future years.

(*a*) *Municipal Roads and Bridges.*—The following tables show the mileage of streets and roads and the number of bridges under the control of municipalities and village management boards in the Cape, Natal, Transvaal, and Orange Free State Provinces, also the expenditure, for a series of years:—

(i) MILEAGE OF STREETS AND ROADS AND NUMBER OF BRIDGES UNDER CONTROL OF MUNICIPALITIES AND VILLAGE MANAGEMENT BOARDS, CAPE OF GOOD HOPE, NATAL, TRANSVAAL, AND ORANGE FREE STATE, TOGETHER WITH EXPENDITURE, 1919-20 TO 1923-24.

Heading.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
Cape of Good Hope—					
Streets and Roads....miles	2,310	2,225	2,227	2,227	2,227
Bridges.....number	294	234	225	217	203
*Expenditure.....£	245,414	267,138	276,229	263,401	305,930
Natal—					
Streets and Roads....miles	559	622	634	634	634
Bridges.....number	72	72	70	76	73
*Expenditure.....£	109,595	121,138	95,222	107,261	116,700
Transvaal—					
Streets and Roads....miles	2,548	2,539	2,543	2,543	2,543
Bridges.....number	171	198	161	153	156
*Expenditure.....£	288,144	339,891	323,897	321,983	376,498
Orange Free State—					
Streets and Roads....miles	653	669	671	671	671
Bridges.....number	40	41	70	37	40
*Expenditure.....£	36,570	43,843	34,337	32,628	31,187

* Municipalities only.

(ii) URBAN AUTHORITIES—MILEAGE OF ROADS AND NUMBER OF BRIDGES, WITH EXPENDITURE ON STREET AND BRIDGE CONSTRUCTION AND MAINTENANCE, 1923-24.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.
Length of streets constructed..	1,209	323	764	211	2,507
On which no construction has been done.....	1,018	311	1,779	460	3,568
TOTAL.....	2,227	634	2,543	671	6,075
Number of bridges for general traffic—	No.	No.	No.	No.	No.
Under 20-ft. span.....	110	35	101	10	256
20-ft. span and over.....	93	38	55	30	216
TOTAL.....	203	73	156	40	472
*Expenditure during year on street and bridge construction and maintenance.....£	305,930	116,700	376,498	31,187	830,315

* Municipalities only.

(b) *Revenue, Expenditure, and Rateable Property.*—The following tables give particulars of the revenue, expenditure, indebtedness, and rateable valuation of property of urban local authorities in the Cape of Good Hope, Natal, Transvaal, and Orange Free State Provinces :—

(i) NET LOAN INDEBTEDNESS AND RATEABLE VALUATION OF PROPERTY—URBAN AUTHORITIES, 1921-22 TO 1923-24.

Province.	Indebtedness.			Rateable Value of Property.		
	1921-22.	1922-23.	1923-24.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Cape of Good Hope—						
Municipalities.....	11,508,765	11,909,952	12,194,382	59,385,051	60,055,772	68,234,296
Village Management Boards.....	12,495	19,870	22,258	1,968,172	2,245,648	2,447,034
Natal—						
Municipalities.....	5,469,688	5,469,549	6,277,630	23,587,658	24,514,685	24,723,362
Townships.....	76,291	75,722	75,093	1,080,411	1,263,706	1,288,083
Transvaal—						
Town Councils.....	6,155,139	6,541,988	6,795,627	71,337,932	74,125,142	78,718,226
Village Councils.....	62,596	40,787	46,658	3,560,343	3,338,437	3,958,667
Health Committees..	2,108	1,470	1,447	449,061	442,892	504,092
Orange Free State—						
Municipalities.....	1,942,178	2,086,128	2,262,188	10,417,556	11,730,272	12,169,982
Village Management Boards.....	402	402	733	23,400	9,000	39,000
TOTAL.....£	25,229,662	26,145,868	27,676,016	171,809,584	177,725,554	192,082,742

(ii) REVENUE AND EXPENDITURE OF URBAN AUTHORITIES, 1921–22 TO 1923–24.

Province.	Revenue.			Expenditure.		
	1921–22.	1922–23.	1923–24.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Cape of Good Hope—						
Municipalities	2,796,466	2,900,696	2,982,066	2,819,401	2,694,684	2,799,349
Village Management Boards	22,044	24,865	30,760	22,594	22,984	29,201
Natal—						
Municipalities	1,738,383	1,763,251	1,848,890	1,598,166	1,677,453	1,751,682
Townships	31,212	32,360	35,021	27,377	30,663	33,604
Transvaal—						
Town Councils	3,939,681	3,821,849	3,893,121	3,780,940	3,636,807	3,805,603
Village Councils	82,470	89,456	85,846	81,775	82,309	77,905
Health Committees	14,081	10,933	12,153	13,503	10,674	10,771
Orange Free State—						
Municipalities	563,653	576,418	589,527	561,874	574,478	578,418
Village Management Boards	678	1,010	1,061	746	1,014	1,058
TOTAL.....£	9,188,668	9,220,838	9,478,445	8,906,376	8,731,066	9,087,591

(iii) PARTICULARS OF EXPENDITURE INCURRED BY MUNICIPALITIES, 1921–22 TO 1923–24.

Heading.	Union.			Provinces—1923–24.			
	1921–22.	1922–23.	1923–24.	Cape.	Natal.	Transvaal.	Orange Free State.
	£	£	£	£	£	£	£
Administration	430,740	404,284	416,273	166,241	74,838	128,170	47,024
Sanitary	938,792	869,783	851,924	266,545	81,020	452,529	51,830
Public Health	197,071	176,676	191,304	78,055	25,095	75,053	13,101
Streets and Bridges	699,492	708,215	812,780	305,930	116,700	358,963	31,187
Street Lighting	110,620	117,593	120,470	46,492	15,834	51,347	6,797
Water	675,778	713,670	709,522	233,229	91,006	323,811	51,476
Electric Supply	1,138,818	1,133,644	1,117,153	350,780	259,158	448,228	58,987
Gas Supply	34,094	29,547	29,057	658	—	28,399	—
Tramways	1,016,208	930,267	927,733	32,437	273,906	598,407	22,983
Abattoirs	117,091	116,543	120,776	26,245	15,979	71,801	6,751
Assize	12,963	10,263	1,046	622	424	—	—
Cemeteries	46,819	42,778	46,756	9,180	2,649	32,695	2,232
Estate	60,296	64,586	74,389	33,406	10,687	18,185	12,111
Fire Brigades	138,044	126,914	130,821	44,042	19,696	63,341	3,742
Locations	105,858	113,140	131,833	29,651	16,587	63,383	22,212
Markets	143,497	134,429	141,972	43,201	42,538	48,556	7,677
Pounds	12,859	12,387	13,074	3,120	172	5,242	4,540
Forestry	32,591	43,681	37,224	14,993	8,265	10,159	3,807
Town Halls, Parks, Gardens, Recreation Grounds, Swimming Baths, Bathing and Wash Houses	305,330	306,095	315,055	108,178	57,610	124,762	24,505
Mayoral Allowances	17,795	18,166	24,636	4,434	2,238	15,241	2,723
Public Entertainments	16,867	10,948	18,166	7,077	4,066	5,914	1,109
Grants to Hospitals and other Institutions	116,112	147,406	169,395	56,625	41,979	61,218	9,573
Elections	7,970	9,291	5,679	1,831	151	3,230	467
Valuations	12,837	10,158	17,746	11,452	933	4,656	705
Legal and Audit	27,902	29,135	30,391	10,439	4,024	11,084	4,844
Insurance	32,800	30,838	28,222	6,628	842	19,591	1,161
Pensions and Gratuities	66,929	74,823	80,491	17,338	8,907	49,752	4,494
Police	80,079	77,287	85,786	1,573	84,207	6	—
Loan Charges—							
Interest	1,062,302	1,150,178	1,348,480	493,043	301,952	434,142	119,343
Redemption	421,142	432,852	484,004	186,181	54,198	192,370	51,255
Other Loan Charges	39,800	44,863	37,542	17,098	2,725	15,869	1,850
Native Beer	59,294	55,308	56,078	—	56,078	—	—
Other Expenditure	581,591	437,674	269,274	192,625	77,218	89,499	9,932
TOTAL.....£	8,760,381	8,583,422	8,935,052	2,799,349	1,751,682	3,805,603	578,418

(iv) PARTICULARS OF REVENUE RECEIVED BY MUNICIPALITIES, 1921–22 TO 1923–24.

Heading.	Union.			Provinces—1923–24.			
	1921–22.	1922–23.	1923–24.	Cape.	Natal.	Transvaal.	Orange Free State.
	£	£	£	£	£	£	£
Rates	2,692,193	2,513,368	2,419,264	1,119,120	364,787	827,923	179,434
Sanitary Fees	715,527	708,434	729,566	94,900	14,125	571,168	49,373
Water	1,096,212	1,175,991	1,214,323	472,659	167,355	466,113	108,196
Licences	227,571	238,564	250,552	38,737	59,880	142,531	9,404
Abattoirs	147,105	156,069	167,474	36,891	23,897	98,363	8,323
Assize	5,822	4,525	1,219	1,186	33	—	—
Building Plans, Fees	10,412	10,950	11,791	72	1,669	9,748	302
Cemeteries	30,424	27,824	28,350	4,693	2,573	20,145	939
Estate	229,924	223,643	247,312	103,088	79,355	36,808	28,061
Fines	23,708	27,305	30,354	792	12,759	15,464	1,349
Fire Brigades	14,045	13,360	13,845	5,093	3,223	5,197	332
Locations	127,666	136,000	160,287	39,127	29,665	68,631	22,864
Markets	189,497	187,278	194,758	72,820	50,723	59,316	11,899
Pounds	16,262	15,441	15,667	4,297	417	6,265	4,688
Forestry	23,617	17,914	15,276	5,316	5,809	2,250	1,901
Town Halls, Parks, Gardens, Recreation Grounds, Swimming Baths, Bathing and Wash Houses	142,910	161,214	156,780	76,463	34,322	34,767	11,228
Interest	217,130	201,293	200,132	42,171	65,214	74,522	18,225
Electric Supply	1,518,724	1,652,268	1,757,690	617,189	336,457	703,607	100,437
Gas Supply	44,671	45,332	46,565	272	—	46,245	48
Tramways	1,016,193	983,681	1,023,588	32,892	316,392	657,501	16,803
Native Beer	79,681	78,968	82,162	—	82,162	—	—
Other Revenue	468,889	482,792	474,649	214,298	198,073	46,557	15,721
TOTAL £	9,038,183	9,062,214	9,313,604	2,982,066	1,848,890	3,893,121	589,527

(c) *Cape Divisional Councils (including Rural Council of Cape Division).*—Particulars are given below of receipts, expenditure, etc., of Divisional Councils in the Cape Province and the Rural Council of the Cape for a period of years :—

CAPE DIVISIONAL COUNCILS—FINANCIAL STATISTICS, 1919 TO 1923.

Heading.	1919.	1920.	1921.	1922.	1923.
	£	£	£	£	£
*Receipts	741,652	754,686	821,216	773,927	758,111
†Payments	745,313	822,405	842,882	750,615	759,426
‡Loan Indebtedness	26,278	58,227	69,625	83,082	104,995
Rateable Valuation of Property	119,452,343	121,720,159	123,336,659	123,894,443	125,447,565

* Excluding contributions received from other Councils.
† Excluding contributions made to other Councils.
‡ Excluding bank overdrafts on current account.

(*d*) *Municipal Electric Lighting.*—The subjoined tables give particulars of municipal electric light and power stations for 1923-24 :—

MUNICIPAL ELECTRIC LIGHT AND POWER STATIONS, UNION, 1923-24.

(i) REVENUE, EXPENDITURE AND NUMBER OF EMPLOYEES.

Town.	Date of Establishment.	Total Capital Invested.	Revenue.	Expenditure.	Number of Employees.		
					European.	Coloured.	Total.
CAPE PROVINCE.							
		£	£	£			
Alice	1921	15,950	2,152	3,018	2	6	8
Aliwal North	1905	32,939	3,375	3,322	7	9	16
Beaufort West	1921	13,322	2,309	3,333	4	1	5
Cape Town	1895	1,407,121	328,510	250,969	199	340	539
Ceres	1910	3,828	749	543	2	—	2
Cradock	1914	14,648	4,573	4,640	6	4	10
East London	1899	117,162	50,299	44,198	58	71	129
Indwe	1917	2,000	777	1,209	2	1	3
King William's Town	1903	59,364	14,311	13,314	9	15	24
Mossel Bay	1922	40,756	4,623	5,839	8	3	11
Oudtshoorn	1911	52,387	10,292	9,705	6	6	12
Paarl	1917	26,113	7,742	7,322	9	4	13
Port Elizabeth	1905	345,355	69,018	67,499	51	101	152
Queenstown	1912	34,700	10,107	10,107	8	8	16
Somerset East	1914	10,686	3,486	2,487	3	2	5
Stellenbosch	1914	21,264	6,385	6,385	10	7	17
Uitenhage	1907	31,919	10,361	8,324	10	7	17
Umtata	1921	23,412	3,309	4,102	4	4	8
Wellington	1914	19,995	5,365	5,423	6	5	11
Worcester	1916	32,027	6,171	5,724	7	6	13
NATAL.							
		£	£	£			
Charlestown	1912	1,090	274	338	1	1	2
Dundee	1902	16,363	4,296	4,313	4	9	13
Durban	1897	906,144	242,723	191,799	128	237	365
Estcourt	1921	11,540	2,119	2,497	2	2	4
Greytown	1904	9,814	3,483	3,559	4	6	10
Ladysmith	1903	31,879	9,834	8,237	10	12	22
Newcastle	1913	8,236	3,325	2,876	4	9	13
Pietermaritzburg	1896	293,993	48,289	43,709	43	43	86
Vryheid	1906	18,970	4,502	4,303	6	6	12
TRANSVAAL.							
		£	£	£			
Bethal	1916	12,200	2,929	2,195	4	3	7
Ermelo	1914	23,569	4,806	4,636	5	7	12
Heidelberg	1915	18,083	3,772	3,896	7	—	7
Johannesburg	1889	1,628,897	479,929	394,507	264	823	1,087
Klerksdorp	1911	17,162	6,577	6,638	7	7	14
Middelburg	1922	28,887	3,808	7,391	3	6	9
Pietersburg	1916	34,073	8,315	9,149	7	12	19
Potchefstroom	1912	22,502	9,324	7,322	7	5	12
Pretoria	1892	597,421	99,758	92,565	83	148	231
Rustenburg	1911	15,191	1,896	3,130	4	6	10
ORANGE FREE STATE.							
		£	£	£			
Bethlehem	1905	31,718	8,030	7,639	8	12	20
Bloemfontein	1900	252,989	56,335	51,486	11	27	38
Harrismith	1904	27,827	5,537	6,206	6	8	14
Heilbron	1904	14,037	2,486	2,381	4	4	8
Kroonstad	1904	77,694	14,258	14,258	8	11	19
Lindley	1918	23,285	2,322	2,839	2	3	5
Parys	1912	15,566	2,751	2,751	6	—	6
Senekal	1915	10,629	2,511	2,121	3	2	5
Vrede	1921	20,746	3,883	3,770	3	4	7
Winburg	1902	8,416	2,673	2,675	4	4	8

MUNICIPAL ELECTRIC LIGHT AND POWER STATIONS, UNION, 1923–24—*continued.*

(ii) PARTICULARS OF PLANT, UNITS, CONNECTIONS, AND CONSUMERS.

Town.	Total Capacity of Plant.	Units Sold or Used.	Working Costs per Unit.	Number of Consumers.
CAPE PROVINCE.				
	Kilowatts.	No.	d.	
Alice	85	75,602	6·26	105
Aliwal North	170	135,916	2·62	285
Beaufort West	40	87,514	5·24	272
Cape Town	16,900	25,774,006	1·245	15,080
Ceres	22	14,000	6·67	85
Cradock	100	118,027	4·216	526
East London	4,400	3,670,609	2·36	2,978
Indwe	75	63,721	3·97	117
King William's Town	600	848,972	2·42	1,032
Mossel Bay	200	329,747	2·35	338
Oudtshoorn	365	227,631	4·96	730
Paarl	225	270,723	3·10	925
Port Elizabeth	6,500	8,328,200	1·051	4,581
Queenstown	318	369,103	4·43	930
Somerset East	70	88,641	4·37	319
Stellenbosch	190	168,806	5·35	560
Uitenhage	270	308,582	3·48	1,016
Umtata	137	70,598	6·18	264
Wellington	166	216,647	4·03	477
Worcester	227	323,420	2·70	676
NATAL.				
	Kilowatts.	No.	d.	
Charlestown	23	17,508	4·63	34
Dundee	175	117,300	5·28	389
Durban	16,450	39,138,965	0·75	12,240
Estcourt	50	35,340	6·90	153
Greytown	118	129,119	4·16	304
Ladysmith	425	688,046	1·71	602
Newcastle	150	73,068	6·79	267
Pietermaritzburg	3,700	3,768,753	1·613	4,731
Vryheid	150	111,873	5·279	390
TRANSVAAL.				
	Kilowatts.	No.	d.	
Bethal	65	47,042	6·67	140
Ermelo	225	155,265	3·25	325
Heidelberg	70	97,252	5·59	307
Johannesburg	22,300	44,197,556	1·402	26,894
Klerksdorp	150	387,754	3·09	409
Middelburg	200	128,603	6·24	265
Pietersburg	280	336,365	3·982	357
Potchefstroom	245	383,862	3·16	774
Pretoria	13,800	9,056,507	1·52	6,500
Rustenburg	100	70,400	6·24	160
ORANGE FREE STATE.				
	Kilowatts.	No.	d.	
Bethlehem	300	373,540	2·96	450
Bloemfontein	2,650	4,992,684	1·509	2,867
Harrismith	200	236,000	3·72	505
Heilbron	115	150,969	1·58	216
Kroonstad	600	908,933	2·11	719
Lindley	90	56,799	3·88	85
Parys	265	75,761	4·72	323
Senekal	75	71,795	3·22	200
Vrede	170	147,760	3·46	185
Winburg	100	71,318	9·00	191

(*e*) *Fire Brigades.*—Particulars are given below as to fire brigades in certain municipalities of the Union in 1923–24 :—

FIRE BRIGADES, 1923–24.

Municipality.	Number of Staff.			Number of Engines.	Number of Calls.	Revenue.	Expenditure.
	European.	Other.	Total.				
						£	£
Cape Town	68	—	68	5	221	4,199	26,125
East London	—	—	—	2	20	58	6,711
Kimberley	12	2	14	3	58	158	3,798
Port Elizabeth	11	1	12	2	19	283	6,837
Durban	33	8	41	6	87	2,642	16,294
Pietermaritzburg	8	1	9	3	37	318	2,630
Benoni	4	1	5	2	35	231	2,740
Boksburg	4	1	5	3	9	176	2,053
Germiston	8	1	9	2	25	458	3,421
Johannesburg	77	—	77	11	335	2,367	44,506
Krugersdorp	15	—	15	1	17	—	2,085
Potchefstroom	5	1	6	2	1	—	406
Pretoria	21	1	22	4	62	1,343	12,673
Roodepoort	21	7	28	3	5	94	1,038
Bloemfontein	5	1	6	4	44	276	3,263
Other Towns	162	11	173	20	61	423	4,556

(*f*) *Number of Employees, Salaries, and Wages.*—The following table gives particulars regarding the number of persons employed by all local authorities in the Union at 31st December, together with the amount of salaries and wages paid during the calendar years 1921 to 1924 :—

NUMBER OF EMPLOYEES, SALARIES, AND WAGES, 1921 TO 1924.

Local Authorities and Provinces.	Number of Employees.			Salaries and Wages Paid.		
	European.	Other.	Total.	European.	Other.	Total.
Municipalities—				£	£	£
Cape of Good Hope	3,495	7,285	10,780	741,929	569,748	1,311,677
Natal	2,193	7,496	9,689	699,028	228,493	927,521
Transvaal	5,863	9,925	15,788	1,472,743	333,387	1,806,130
Orange Free State	825	2,023	2,848	163,963	72,470	236,433
TOTAL	12,376	26,729	39,105	3,077,663	1,204,098	4,281,761
Other Urban Authorities—						
Cape of Good Hope	234	160	394	9,976	3,901	13,877
Natal	49	271	320	8,961	7,283	16,244
Transvaal	53	37	90	4,841	1,176	6,017
Orange Free State	13	7	20	612	165	777
TOTAL	349	475	824	24,390	12,525	36,915
Divisional Councils—						
Cape of Good Hope	1,447	7,251	8,698	142,577	228,866	371,443
GRAND TOTAL, 1924	14,172	34,455	48,627	3,244,630	1,445,489	4,690,119
GRAND TOTAL, 1923	12,426	33,509	45,935	2,939,615	1,329,140	4,268,755
GRAND TOTAL, 1922	11,143	30,962	42,105	2,775,291	1,281,056	4,056,347
GRAND TOTAL, 1921	10,662	31,183	41,845	3,040,923	1,391,096	4,432,019

§ 5. Statistics of Principal Municipalities.

1. **City of Cape Town.**—An account of the history and development of Cape Town was given in Chapter I of earlier issues of this *Year Book*. The population of the city in the years 1911, 1918, 1921, and 1926 is reflected in the following table :—

Year.	European.	Other.	Total.
1911	78,412	71,719	150,131
1918	89,174	—	—
1921	101,685	81,672	183,357
1926	112,548*	—	—

* Preliminary unaudited figures.

In the subjoined tables are shown the financial results of the Corporation's activities for a series of years, and general statistics are given to show the progress made in various directions since unification in 1914 :—

(i) CITY OF CAPE TOWN—GENERAL STATISTICS, 1920 TO 1923.

Description.	1920.	1921.	1922.	1923.
Indebtedness at 31st December*.....£	6,271,668	6,503,386	6,699,221	6,588,241
Sinking Fund—				
Accumulations.....£	1,074,797	1,178,659	} 1,216,945	1,327,924
Repayments.....£	837,832	987,359		
Balance.....£	236,965	191,299		
Loans Raised.....£	556,500	406,270	234,120	—
Capital Expenditure during year—				
From Loans.....£	926,020	550,993	} 574,003	552,798
From Revenue.....£	4,329	4,886		
Unexpended Loan Balance at 31st December £	696,833	652,312	616,878	386,191
Temporary Charges on Loan Funds at 31st December.....£	365,078	296,849	249,202	429,699
Balance at 1st January—				
Profit.....£	3,585	761	970	10,317
Loss.....£	—	—	—	—
Rates †.....£	510,161	617,384	556,473	549,483
Other Revenue.....£	644,622	695,301	766,696	781,316
Expenditure.....£	1,157,607	1,312,476	1,313,822	1,324,466
Balance at 31st December—				
Profit.....£	761	970	10,317	16,650
Loss.....£	—	—	—	—
Total Valuation of Immovable Property.....£	30,960,356	31,696,049	32,229,789	32,939,886
Debt per £1 thereon.....	£0. 3s. 10d.	£0. 4s. 1d.	£0. 4s. 2d.	£0. 4s. 0d.
Rateable Valuation of Immovable Property £	23,885,198	24,521,571	24,954,911	25,627,289
Debt per £1 thereon	£0. 5s. 3d.	£0. 5s. 4d.	£0. 5s. 5d.	£0. 5s. 2d.
Surplus of Assets over Liabilities‡.....£	1,713,369	1,968,199	2,206,448	2,458,687

* After deduction of available Sinking Funds. † Including payments in lieu of Rates.
‡ Exclusive of (*a*) property and lands on which no expenditure is recorded, and (*b*) Sinking Funds.

(ii) CITY OF CAPE TOWN—INDEBTEDNESS, 1923.

(*a*) LOANS, SINKING FUNDS, AND NET DEBT, 1914 TO 1923.

YEAR.	AMOUNT RAISED.	SINKING FUNDS.			NET DEBT.†
		Accumulations.	Repayments.	Balance.	
	£	£	£	£	£
1914	4,994,725*	588,216	380,034	208,182	4,477,199
1915	75,000	664,592	426,240	238,352	4,475,823
1916	500,000	748,259	484,088	264,171	4,892,156
1917	68,640	815,362	550,898	264,464	4,893,693
1918	343,090	895,132	587,322	307,810	5,157,014
1919	737,826	981,621	660,168	321,453	5,808,345
1920	556,500	1,074,797	837,832	236,965	6,271,668
1921	406,270	1,178,659	987,359	191,300	6,503,386
1922	234,120	1,216,945	1,157,352	59,593	6,699,221
1923	—	1,327,924	1,332,145	—	6,588,241

* From 1883 to 1914. † Taking into account Sinking Fund balances.

(*b*) CAPITAL EXPENDITURE TO 31ST DECEMBER, 1923.

Allocation.	Prior to 1919.	1919.	1920.	1921.	1922.	1923.	Total.
	£	£	£	£	£	£	£
Markets	85,956	2,053	122	876	1,797	133	90,937
Slaughter-houses	52,865	725	5,787	7,272	9,488	7,969	84,106
Baths and Bathing Pavilions	75,505	1,633	2,535	5,363	1,542	782	87,360
Beach Improvements	12,595	526	8	589	—	1,761	15,479
Pier, Sea Promenade, and Marine Drive	122,901	3,590	3,870	6,905	7,290	4,311	148,867
Fishing Harbour	6,167	6,811	1,039	6	50	3 8	14,441
Parks, Gardens, Recreation Grounds, and Tree Planting	53,796	791	105	149	1,594	421	56,856
Street Improvements	1,573,599	24,120	43,829	62,085	61 580	116,143	1,881,356
Sewers	1,229,648	118,127	176,603	155,825	122,741	94,623	1,897,567
Plant and Buildings (Streets Depots)	190,553	5,168	13,098	18,636	4,380	1,183	233,018
Refuse Destructor	1,732	—	—	—	—	618	2,350
Hospital and Sanitary Conveniences	71,200	1,385	743	1,660	—	17,221	92,209
Fire Brigade Plant and Buildings	44,246	180	3,842	1,947	1,878	294	52,387
Municipal Halls	249,197	—	—	—	1,075	1,562	251,834
Property Account	252,657	—	6,669	—	—	1,187	260,513
Electric Installation	775,210	36,897	101,387	190,310	214,329	88,988	1,407,121
Waterworks	1,725,396	470,131	553,064	76,115	48,135	62,286	2,935,127
Miscellaneous	190,212	38,419	17,648	28,141	98,124	152,678	525.222
TOTAL £	6,713,435	710,556	930,349	555,879	574,003	552,528	10,036,750

(iii) **CITY OF CAPE TOWN—GENERAL REVENUE, 1920 TO 1923.**

Heading.	1920.	1921.	1922.	1923.
	£	£	£	£
Uniform Rating Purposes—				
Markets and Slaughter-houses	36,883	41,019	41,774	41,509
Improvements and Parks	30,270	18,776	17,332	19,117
Streets and Drainage	48,969	69,812	69,272	69,519
Health and Building Regulation	10,818	9,203	9,221	11,618
Fire Brigade	4,258	4,710	4,679	4,759
Washhouses	883	817	825	1,192
Electricity	240,076	284,030	328,800	330,888
Waterworks	161,883	197,207	211,402	221,214
Housing and Estates	6,842	8,116	18,904	25,422
Finance	99,613	57,967	59,606	51,768
Rates (including payments in lieu of Rates)—				
Municipal	398,559	485,912	414,445	450,201
Rural Council	740	—	1,854	—
School Board	—	—	—	—
TOTAL £	1,039,794	1,177,569	1,178,114	1,227,207
Differential Rating Purposes—				
Sea Point Area—Rates	4,719	6,440	8,097	6,520
Cape Town and Kalk Bay Area—				
Rates	48,551	47,060	50,703	38,982
Services	472	412	462	471
Woodstock to Claremont Area—				
Rates	58,141	77,773	82,904	55,451
Services	2,915	3,232	2,565	1,934
Added Areas—Rates	—	—	—	—
Camps Bay—Rates	191	199	324	234
TOTAL £	114,989	135,116	145,055	103,592
GRAND TOTAL £	1,154,783	1,312,685	1,323,169	1,330,799

(iv) CITY OF CAPE TOWN—GENERAL EXPENDITURE, 1920 TO 1923.

Heading.	1920.	1921.	1922.	1923.
Uniform Rating Purposes—	£	£	£	£
Markets and Slaughter-houses	31,763	37,427	31,810	32,187
Improvements and Parks	60,396	51,160	48,959	50,303
Streets and Drainage	278,134	309,860	280,508	308,116
Street Lighting	19,941	19,942	19,944	19,073
Health and Building Regulation	55,783	58,240	50,451	58,122
Fire Brigade	25,817	29,393	29,187	27,395
Washhouses	3,564	3,742	4,013	3,846
Electricity	219,523	263,477	302,100	304,189
Waterworks	184,648	220,897	215,022	221,214
Housing and Estates	6,823	7,628	20,463	25,645
Finance	128,246	132,086	139,566	133,388
Special Contributions under Ordinances—				
Hospital Board	8,213	5,764	8,071	8,333
School Board	—	—	—	—
Rural Council	—	—	—	—
Surplus Transferred to Loan	16,943	37,953	28,020	3,857
TOTAL £	1,039,794	1,177,569	1,178,114	1,195,668
Deduct Work in Added Areas £	—	—	—	—
NET £	1,039,794	1,177,569	1,178,114	1,195,668
25 *Per cent. of Expenditure for Differential Rating Purposes*—				
Sea Point Area	—	—	—	2,057
Cape Town–Kalk Bay Area	—	—	—	11,912
Woodstock to Claremont Area	—	—	—	17,570
TOTAL £	1,039,794	1,177,569	1,178,114	1,227,207
Differential Rating Purposes—				
Sea Point Area	4,598	4,728	9,723	8,230
Cape Town and Kalk Bay Area	47,299	51,739	48,266	48,118
Woodstock and Claremont Area	65,725	78,241	77,395	72,216
Added Areas	—	—	—	—
Sea Point Railway Rate	—	—	—	—
TOTAL £	117,622	134,708	135,384	128,564
25 *Per Cent. of Net Expenditure transferred to Uniform Rating*	—	—	—	31,539
	—	—	—	97,025
Camps Bay—Special Rating	191	199	324	234
TOTAL £	117,813	134,907	135,708	97,259
GRAND TOTAL £	1,157,607	1,312,476	1,313,822	1,324,466

(v) CITY OF CAPE TOWN—SUMMARY OF TRADING DEPARTMENTS' TRANSACTIONS, 1917 TO 1923.

Year.	Income.	Working Expenses.	Gross Profit.	Capital Charges.	Net Profits.	Contributions in Aid of Rates.
			(*a*) ELECTRIC DEPARTMENT.			
	£	£	£	£	£	£
1917	156,051	100,831	55,220	48,079	7,141	7,141
1918	173,841	92,298	81,543	71,651	9,892	9,892
1919	208,410	112,697	95,713	75,448	20,265	20,265
1920	240,076	153,840	86,236	65,684	20,552	20,552
1921	284,030	169,990	114,040	93,487	20,553	20,553
1922	329,149	150,111	179,038	151,988	27,050	27,050
1923	329,009	152,606	176,403	151,581	24,822	24,822
			(*b*) WATER DEPARTMENT.			
	£	£	£	£	£	£
1917	112,830	36,217	76,613	61,138	15,475	15,475
1918	113,376	38,787	74,589	66,988	7,601	7,601
1919	128,774	44,206	84,568	85,246	— 678 *	—
1920	161,883	61,341	100,542	123,307	—22,765 *	—
1921	222,547	56,095	166,452	164,802	1,650	1,650
1922	224,616	46,438	178,178	168,585	9,593	9,593
1923	221,564	52,088	169,476	169,126	—	—

* Net Loss.

(vi) CITY OF CAPE TOWN—RATEABLE VALUATION OF IMMOVABLE PROPERTY, 1923.

Area.	Previous Valuation.	Interim Valuation, 1923.		Total.
		Amount.	Increase per cent.	
	£	£		£
Sea Point	2,526,670	91,631	3·62	2,618,301
Cape Town	13,915,980	341,600	2·45	14,257,580
Kalk Bay and Muizenberg	1,315,305	50,730	3·85	1,366,035
Woodstock and Salt River	2,400,799	32,400	1·35	2,433,199
Maitland	386,124	12,795	3·31	398,919
Mowbray	1,221,430	27,902	2·28	1,249,332
Rondebosch	1,614,081	38,325	2·37	1,652,406
Claremont	1,472,637	63,785	4·33	1,536,422
Camps Bay	101,685	13,410	13·27	115,095
TOTAL £	24,954,711	672,578	2·69	25,627,289

Exclusive of—	£
Government property valued at	3,667,303
Other exempted	3,645,294
TOTAL	£7,312,597

(vii) CITY OF CAPE TOWN—RATES LEVIED, 1922 AND 1923.

Purpose.	Sea Point.	Cape Town and Kalk Bay.	Woodstock to Claremont.	Camps Bay.	Areas added to Rondebosch, Claremont, Kalk Bay, and Muizenberg.
	d.	d.	d.	d.	d.
Uniform	3·9	3·9	3·9	3·9	—
Differential	·6	·6	1·9	—	—
Special	—	—	—	·5	2·5
Water	—	—	—	—	—
Health	·3	·3	·3	·3	—
Divisional Council	·375	·375	·375	·375	·375
Provincial Council—Immovable Property Tax	—	—	—	—	—
TOTAL, 1923	5·175	5·175	6·475	5·075	2·875
TOTAL, 1922	5·175	5·175	7·275	5·125	2·375
DECREASE	—	—	·80	·05	—
INCREASE	—	—	—	—	·50

2. **Borough of Durban.**—The town of Durban was constituted a Borough in 1854, under Ordinance No. 1 of 1854 (Natal), with a Mayor and Town Council. The population of the Borough in the years 1911, 1918, 1921, and 1926 was as follows:—

Year.	European.	Other.	Total.
1911	33,252	39,345	72,597
1918	41,865	—	—
1921	47,358	48,183	95,541
1926	53,342*	—	—

*Preliminary unaudited figures.

The following table gives particulars regarding receipts and expenditure for the municipal years (ending 31st July) 1920–21 to 1923–24:—

Heading.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£
Expenditure	1,640,322	1,567,574	1,538,876	2,307,281
Receipts	1,529,577	1,954,411	1,439,258	2,264,110
Excess Expenditure	110,745	—	99,618	43,171
Surplus Receipts	—	386,837	—	—
Appropriations during year	36,829	41,576	41,575	43,496
Net Surplus	—	345,261	—	—
Net Deficiency	147,574	—	141,193	86,667
Credit Balance from previous year	—	—	111,486	—
Debit Balance from previous year	86,201	233,775	—	29,707
Net Credit Balance at 31st July	—	111,486	—	—
Net Debit Balance at 31st July	233,775	—	29,707	116,374

The following tables give for a series of years particulars as to (i) the Borough Indebtedness, (ii) the Borough Fund Revenue Account, (iii) certain Borough Trading Accounts, and (iv) the Native Administration Account, the revenue from which, derived from the manufacture and sale of native beer and from lodging-house fees, forms a special fund administered in the interests of the natives.

(i) BOROUGH OF DURBAN—INDEBTEDNESS.

(*a*) LOANS, SINKING FUNDS, AND NET DEBT, 1921 TO 1924.

Heading.	1921.	1922.	1923.	1924.
Loan Debt—	£	£	£	£
6½ Per cent.	—	500,000	500,000	500,000
6 „	110,000	110,000	110,000	184,000
5¾ „	500,000	500,000	500,000	500,000
5¼ „	382,000	382,000	382,000	382,000
5 „	526,000	526,000	526,000	1,030,000
4½ „	130,000	130,000	130,000	130,000
4 „	2,170,000	2,170,000	2,170,000	2,170,000
3½ „	450,000	450,000	450,000	450,000
4 „ Government Housing Loan	—	81,084	102,174	100,954
5 „ „ „ „	—	—	23,830	225,892
4 „ Short-dated Loan	—	—	—	43,404
4½ „ „ „	—	—	—	14,250
5 „ „ „	—	—	—	34,070
TOTAL LOANS.....£	4,268,000	4,849,084	4,894,004	5,764,570
Less Loans Repaid—				
5 Per Cent. Loan	—	—	—	4,000
6 „ „	—	—	—	74,000
TOTAL LOAN DEBT.....£	4,268,000	4,849,084	4,894,004	5,686,570
Debit Balance on Banking Account	233,775	—	29,707	116,373
GROSS INDEBTEDNESS.....£	4,501,775	4,849,084	4,923,711	5,802,943
Deductions—				
Sinking Funds	757,055	835,095	921,924	1,013,905
Insurance Funds, etc	18,975	21,005	22,859	24,963
Credit Balance on Banking Account	—	111,487	—	—
TOTAL DEDUCTIONS.....£	776,030	967,587	944,783	1,038,868
NET INDEBTEDNESS.....£	3,725,745	3,881,497	3,978,928	4,764,975

(*a*) LOANS, SINKING FUNDS, AND NET DEBT, 1921 TO 1924—*continued.*

Heading.	1921.	1922.	1923.	1924.
	£	£	£	£
Total Loans Raised—				
Stock	4,226,000	4,726,000	4,726,000	5,226,000
Debentures	510,000	510,000	510,000	510,000
Government Housing Loan	—	81,084	126,004	326,846
Shortdated Loan	—	—	—	91,724
TOTAL £	4,736,000	5,317,084	5,362,004	6,154,570
Deductions—				
Debentures Repaid	78,000	78,000	78,000	78,000
Debentures Reissued in Stock	390,000	390,000	390,000	390,000
TOTAL DEDUCTIONS £	468,000	468,000	468,000	468,000
TOTAL LOAN DEBT AS ABOVE £	4,268,000	4,849,084	4,894,004	5,686,570

(*b*) BOROUGH OF DURBAN—CAPITAL EXPENDITURE, 1920 TO 1924.

Account.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£
Abattoirs	5,834	3,683	1,137	279	—
Electric Light	37,317	131,652	81,382	69,908	77,572
Markets	16,104	3,395	839	243	11,767
Public Baths	8,398	3,118	125	—	1,325
Telephones	8,949	8,023	22,507	6,963	49,409
Tramways	20,377	59,117	22,258	8,416	35,105
Water	17,404	42,092	59,082	93,733	147,190
TRADING TOTAL £	114,383	251,080	187,330	179,542	322,368
Sewerage	8,859	8,289	7,708	11,402	12,086
Storm Water Drainage	18,806	20,755	8,592	27,241	31,247
HEALTH TOTAL £	27,665	29,044	16,300	38,643	43,333
Public Improvements	85,848	122,238	80,902	131,439	99,965
Ocean Beach	1,411	18,314	14,750	5,890	16,726
IMPROVEMENTS TOTAL £	87,259	140,552	95,652	137,329	116,691
Togt Fund	2,610	17,091	1,018	—	727
Native Beer Fund	12,555	37,731	3,398	362	17,691
NATIVE TRUSTS TOTAL £	15,165	54,822	4,416	362	18,418

(*b*) BOROUGH OF DURBAN—CAPITAL EXPENDITURE, 1920 TO 1924—*continued.*

Account.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£
Housing	—	—	98,802	77,586	201,764
Zoological Gardens	104	—	—	—	—
Town Hall	850	982	1,370	405	1,476
SUNDRIES TOTAL.....£	954	982	100,172	77,991	203,240
GRAND TOTAL.....£	245,426	476,480	403,870	433,867	704,050

(ii) BOROUGH OF DURBAN—BOROUGH FUND REVENUE ACCOUNT, 1922-23* AND 1923-24.*

Description.	Expenditure.		Income.	
	1922-23.	1923-24.	1922-23.	1923-24.
	£	£	£	£
Balance from previous year	—	—	7,225	3,520
Assize Department	1,074	424	482	—
Town Clerk's Department	4,486	6,155	12	65
Council's General Expenses	5,519	7,319	—	—
Town Treasurer's Department	9,668	11,000	117	116
Audit	745	980	—	—
Legal	1,529	1,717	—	—
Interest	69,704	69,365	8,668	7,033
Loan Expenses	381	446	—	—
Sinking Fund	13,536	12,536	—	—
Public Health	9,445	15,919	3,647	6,491
Sanitary Services	32,503	34,036	3,372	2,910
Sewerage	36,302	37,738	1,600	1,581
Borough Engineer	4,351	2,980	1,300	1,322
General Stores	6,315	2,945	1,627	1,394
Licensing Department	3,316	3,500	37,324	40,875
Police	61,613	69,372	7,695	9,725
Pensions	5,291	4,972	1,874	1,939
Housing Scheme	12,927	13,914	8,279	6,112
Street Lighting	8,452	9,147	—	—
Works Department	85,005	97,651	151	180
Town Hall	13,772	15,489	2,943	2,699
Art Gallery	2,255	2,343	229	51
Library	6,167	7,322	2,645	2,982
Museum	3,064	3,115	158	23
Botanic Gardens	2,796	3,197	2,780	2,799
Lords Grounds	—	—	—	—
Parks, Tree Planting, etc	4,997	5,868	5	103
Zoological Gardens	3,166	2,214	1,500	825
Music and Gala Seasons	21,635	19,223	17,017	11,330
Ocean Beach	12,208	11,284	8,099	7,700
Publicity	2,599	933	—	3
Cemeteries	1,559	1,758	1,426	1,832
Fire	16,057	16,294	2,442	2,642
Estates	5,520	5,183	49,013	59,865
Grants-in-Aid	39,921	35,772	—	—
Registration of Natives	6,838	2,882	13,001	5,058
Miscellaneous	2,700	2,328	429	638
Departmental Contribution to Rates	—	—	56,871	70,400
General Rates	—	—	279,005	271,071
Balance	3,520	—	—	14,037
TOTAL.....£	520,936	537,321	520,936	537,321

* Year ended 31st July.

(iii) BOROUGH OF DURBAN—SUMMARY OF TRADING DEPARTMENTS' TRANSACTIONS, 1917–18 TO 1923–24.

Year.	Abattoir.	Borough Market.	Indian Market.	Public Baths.	Electric Supply.	Telephones.	Tramways.	Water Supply.	TOTAL.
				INCOME.					
	£	£	£	£	£	£	£	£	£
1917–18	10,164	15,884	4,460	10,137	138,732	34,878	181,011	82,303	477,569
1918–19	14,287	18,399	4,523	14,110	146,087	35,768	214,082	81,695	528,951
1919–20	14,560	25,410	4,332	12,164	167,039	41,746	267,002	93,428	625,681
1920–21	16,445	28,071	7,518	13,214	198,768	52,440	238,337	104,161	658,954
1921–22	18,363	26,513	8,018	13,234	216,194	55,745	276,468	113,853	728,388
1922–23	20,547	27,348	8,501	12,701	242,724	59,991	288,870	116,132	776,814
1923–24	20,850	29,701	8,881	11,940	259,960	62,582	294,722	119,556	808,192
				WORKING EXPENSES.					
	£	£	£	£	£	£	£	£	£
1917–18	4,825	10,905	2,392	10,996	69,724	18,815	120,244	20,792	258,693
1918–19	6,411	13,871	2,763	14,284	85,348	21,308	148,550	25,668	318,203
1919–20	11,226	16,529	3,504	21,345	101,640	27,228	193,062	34,445	408,979
1920–21	9,454	20,625	4,374	23,341	126,380	32,977	215,313	39,217	471,681
1921–22	9,434	18.858	4,406	19,560	130,182	30,604	211.658	35,990	460,692
1922–23	9,106	19,434	4,155	18,837	122,828	35,981	199,139	33,528	443,008
1923–24	10,531	23,999	5,504	16,726	143,563	39,305	201,214	36,757	477,599
				GROSS PROFIT.					
	£	£	£	£	£	£	£	£	£
1917–18	5,339	4,979	2,068	— 859*	69,008	16,063	60,767	61,511	218,876
1918–19	7,876	4,528	1,760	— 174*	60,739	14,460	65,532	56,027	210,748
1919–20	3,334	8,881	828	— 9,181*	65,399	14,518	73,940	58,983	216,702
1920–21	6,991	7,446	3,144	—10,127*	72,388	19,463	23,024	64,944	187,273
1921–22	8,929	7,655	3,612	— 6,326*	86,012	25,141	64,810	77,863	267,696
1922–23	11,441	7,914	4,346	— 6,136*	119,896	24,010	89,731	82,604	333,806
1923–24	10,319	5,702	3,377	— 4,786*	116,397	23,277	93,508	82,799	330,593
				CAPITAL CHARGES.					
	£	£	£	£	£	£	£	£	£
1917–18	4,812	2,857	965	3,854	36,581	10,107	39,978	36,678	135,832
1918–19	6,105	3,127	1,003	6,719	36,216	10,158	44,801	42,827	150,956
1919–20	5,350	3,078	1,401	6,860	40,773	9.410	42,735	45,783	155,390
1920–21	5,535	2,664	2,184	6,947	47,452	9,976	53,884	50,544	179,186
1921–22	5,588	2,285	2,145	5,575	58,420	12,008	56,175	59,724	201,920
1922–23	5,768	3,045	1,426	5,403	68,971	13,580	95,397	64,282	257,872
1923–24	6,058	2,836	1,713	5,903	76,261	15,119	93,508	64,142	265,540
				NET PROFIT.					
	£	£	£	£	£	£	£	£	£
1917–18	527	2,122	1,103	— 4,713*	32,427	5,956	20,789	24,833	83,044
1918–19	1,771	1,401	757	— 6,893*	24,523	4,302	20,731	13,200	59,792
1919–20	—2,016*	5,803	— 573*	—16,041*	24,626	5,108	31,205	13,200	61,312
1920–21	1,456	4,781	960	—17,074*	24,936	9,487	—30,860*	14,400	8,086
1921–22	3,341	5,370	1,467	—11,901*	27,592	13,133	8,635	18,139	65,776
1922–23	5,673	4,869	2,920	—11,539*	50,925	10,430	— 5,666*	18,322	75,934
1923–24	4,261	2,866	1,664	—10,689*	40,136	8,158	—	18,657	65,053
				PAYMENTS TO BOROUGH FUND.					
	£	£	£	£	£	£	£	£	£
1917–18	527	1,688	1,103	—	17,936	5,400	19,978	24,833	71,465
1918–19	1,771	1,401	757	—	16,600	4,302	20,400	13,200	58,431
1919–20	—	1,688	—	—	16,600	5,108	20,400	13,200	56,996
1920–21	1,456	1,688	960	—	23,000	6,600	—	14,400	48,104
1921–22	2 440	1,688	960	—	26,000	7,400	—	18,139	56,627
1922–23	2,440	1,688	960	—	26,000	7,400	—	18,322	56,810
1923–24	2,440	1,688	960	—	26,000	7,400	—	19,400	57,888

* Loss.

(iv) BOROUGH OF DURBAN—NATIVE ADMINISTRATION.*

Description.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£
Revenue	38,495	41,776	56,148	60,590	27,983
Working Expenses	38,119†	42,977	42,331	39,900	15,514
BALANCE.....£	376	‡1,201	13,817	20,690	12,469

* This Fund, the revenue from which is obtained from the sale of native beer, lodging-house fees etc., is held in trust by the Council to be utilized for the benefit of the natives, including the administration and maintenance of a location, the provision of hospital accommodation, schools, etc.
† Does not include £12,556 expenditure on Capital Account.
‡ Deficit Balance.

3. **Municipality of Johannesburg.**—The town of Johannesburg first acquired developed municipal institutions in 1897 by the foundation, under a Law enacted in that year, of a *Stadsraad* of twelve members, with a Burgomaster appointed by the Government. This body virtually ceased to exist on the outbreak of war in 1899, but was reconstituted as a nominated Council after the occupation of the town by the British. An Ordinance passed two years later gave authority for the election of a Town Council, which met for the first time in December, 1903. Since that date the European population of Johannesburg has increased from 83,902 (Census of April, 1904) to 137,873 in 1918, 150,286 in 1921, and 168,321 in 1926, and the non-European population which in 1904 was 74,678 numbered 117,151 in 1911 and 132,685 in 1921. The progress recorded in other directions, and particularly in the development of municipal enterprises, has been equally great. The tables hereunder contain details, for a period of years, as to the financial position of the Municipality—its loan indebtedness, expenditure, revenue, trading undertakings, etc.

(i) MUNICIPALITY OF JOHANNESBURG—INDEBTEDNESS, 1924.

(*a*) LOANS, SINKING FUNDS, AND NET DEBT, 1903 TO 1924.

Year.	Amount Raised.					Redemption Fund at 30th June.	Net Debt at 30th June.
	From Renewals Fund.	Inscribed Stock (4 %).	Inscribed Stock (5½ %).	From Redemption Fund (4 %).*	Total.		
	£	£	£	£	£	£	£
1903..	—	1,500,000	—	—	1,500,000	12,200	686,395
1904..	—	1,500,000	—	—	1,500,000	19,631	3,293,264
1905..	—	2,500,000	—	—	2,500,000	115,076	5,384,924
1906..	—	—	—	—	—	223,163	5,276,837
1907..	—	—	—	—	—	355,980	5,144,020
1908..	—	—	—	—	—	495,839	5,004,161
1909..	—	—	—	—	—	631,018	4,868,982
1910..	—	—	—	—	—	721,874	4,778,126‡
1911..	—	250,000	—	—	250,000	880,838	4,869,162
1912..	—	—	—	—	—	1,044,895	4,705,105
1913..	—	—	—	—	—	1,207,298	4,542,702
1914†.	—	—	—	125,000	125,000	1,369,310	4,505,690
1915†.	—	—	—	157,000	157,000	1,551,034	4,480,966
1916†.	—	—	—	77,750	77,750	1,740,078	4,369,672
1917†.	—	—	—	33,250	33,250	1,945,751	4,197,249
1918†.	—	—	—	67,000	67,000	2,138,705	4,071,295
1919†.	50,000	—	—	40,000	90,000	2,350,970	3,949,030
1920†.	150,000	—	—	—	150,000	2,602,735	3,847,265
1921†.	274,554	—	—	115,000	389,554	2,839,164	4,000,390
1922†.	—	—	—	230,000	230,000	3,101,499	3,698,055
1923†.	—	—	1,000,000	—	1,000,000	3,422,568	4,172,432
1924†.	—	—	—	—	—	3,724,910	3,835,280

* By virtue of Section 34 of Ordinance No. 3 of 1903.
† Year ended 30th June.
‡ Excluding £250,000 municipal bills converted into Inscribed Stock in 1911.

(*b*) MUNICIPALITY OF JOHANNESBURG—CAPITAL EXPENDITURE (30TH JUNE), 1919 TO 1924.

Account.	1919.	1920.	1921.	1922.	1923.	1924.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
Public Health—						
Sanitary System	411	411	411	411	414	415
Sewerage System	699	727	773	801	831	890
Disinfecting Station	8	8	8	8	7	8
Fever Hospital	—	—	—	15	15	15
HEALTH TOTAL.....£1,000	1,118	1,146	1,192	1,235	1,267	1,328
Road Construction and Improvements—						
Road Construction, including Kerbing and Guttering	633	654	684	711	736	782
Stormwater Drainage	524	546	557	558	564	595
Bridges and Subways	45	46	46	46	47	48
IMPROVEMENTS TOTAL. £1,000	1,202	1,246	1,287	1,315	1,347	1,425
Other Undertakings—						
Expropriation of Insanitary Area.	1,204	1,205	1,205	1,205	1,205	1,205
Fire Brigade	127	131	131	131	131	131
Parks and Zoological Collection..	76	81	107	119	135	153
New Cemetery	32	32	32	32	33	33
Swimming Bath	19	19	21	32	40	41
SUNDRIES TOTAL.....£1,000	1,458	1,468	1,496	1,519	1,544	1,563
Sundry Properties—						
Town Lands and Other Properties	197	197	197	197	197	197
Town Engineer's Plant, Workshops, and Stone Crushers	43	43	48	64	66	70
Native Locations	110	127	184	159	179	184
Town Hall	452	452	453	453	453	453
Art Gallery	49	49	49	49	49	49
Miscellaneous	26	26	26	26	26	27
PROPERTIES TOTAL....£1,000	877	894	957	948	970	980
Trading Departments—						
Gas Department	40	40	44	44	44	44
Electric Department	1,195	1,214	1,372	1,535	1,605	1,700
Tramway Department	894	961	1,014	1,068	1,120	1,220
Water Department	465	479	500	514	545	589
Abattoir Department	125	138	173	212	251	264
Live Stock Market Department...	27	27	37	39	39	39
Produce Market Department.....	127	127	127	130	134	135
TRADING TOTAL.....£1,000	2,873	2,986	3,267	3,542	3,738	3,991
GRAND TOTAL.....£1,000	7,528	7,740	8,199	8,559	8,866	9,287

(ii) MUNICIPALITY OF JOHANNESBURG—FINANCIAL POSITION 1921-22 TO 1923-24.

Description.	Income.			Expenditure.		
	1921-22.	1922-23.	1923-24.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Rates	640,304	486,067	486,951	—	—	—
Interest	61,425	49,816	62,427	—	—	—
Town Treasurer's Department	749	22	238	25,352	26,267	25,436
Valuation Office	12	15	8	5,111	2,571	3,252
Stores Department	2,255	2,943	3,462	2,254	2,943	3,463
Town Clerk's Department	3	4	4	13,549	12,523	13,403
Council's General Expenses	55	148	62	14,743	17,773	14,766
Grants-in-Aid and Gratuities	—	—	—	36,701	37,467	57,546
Town Hall and Selborne Hall	4,986	6,122	5,806	15,211	14,676	15,516
Art Gallery	20	16	2	2,797	2,331	2,502
Allowances to Employees on Active Service	—	—	—	980	—	—
Assize	2,387	2,631	—	6,239	5,635	172
Estates	24,777	25,345	25,096	92,906	90,940	90,038
Swimming Bath	4,143	3,375	4,280	8,147	8,893	8,113
Parks	4,328	4,244	4,938	49,324	49,491	65,660
Cemeteries	16,410	14,944	14,142	19,182	17,088	20,237
Native Locations	16,224	17,479	17,196	27,804	27,371	29,105
Produce Market	36,528	37,072	35,656	40,224	37,660	37,908
Scavenging Services	—	—	—	237,761	204,518	201,009
Sanitary Fees	193,840	196,748	187,316	—	—	—
M.O.H.'s Department	9,751	10,970	11,290	41,395	40,773	41,924
Municipal Pounds	1,513	1,631	1,484	1,277	1,309	1,155
Abattoir	47,495	47,236	51,999	46,315	49,577	54,350
Live Stock Market	14,358	13,528	13,113	13,353	11,468	11,987
Gas Department	44,513	44,975	46,289	36,884	32,214	31,348
Electric Department	442,188	486,916	480,491	427,495	393,819	394,508
Tramway Department	567,522	528,684	549,712	604,102	569,313	569,414
Public Street Lighting	—	—	—	32,946	34,944	34,251
Water Department	276,449	268,499	294,099	243,254	235,658	261,002
Fire Department	2,342	2,530	2,548	50,793	45,076	44,506
Roads Branch	—	—	—	167,182	169,437	202,971
Street Watering Service	15	64	3	18,748	18,167	21,382
Stormwater Drainage	—	—	—	36,770	36,755	39,259
Sewerage and Sewage Farm	93,425	96,644	103,075	79,353	77,789	88,462
Building Survey	6,306	6,990	7,620	8,900	8,590	9,106
Licensing	58,632	65,400	72,943	13,456	12,664	16,251
Contribution to Pension Fund	—	—	—	—	—	—
Extraordinary Payments	—	—	—	—	—	—
Extraordinary Receipts	—	—	—	—	—	—
TOTAL.....£	2,572,955	2,421,058	2,482,250	2,420,508	2,295,700	2,410,002
Transfers to Capital Fund	—	—	—	53,505	69,763	61,293
Total for the Year	2,571,954*	2,417,656†	2,478,198‡	2,474,013	2,365,463	2,471,295
EXCESS.....£	97,941	52,193	6,903	—	—	—

* Less £1,001—Bad debts written off and provision for doubtfuls.
† Less £3,402—Bad debts written off and provision for doubtfuls.
‡ Less £4,052—Bad debts written off and provision for doubtfuls.

(iii) MUNICIPALITY OF JOHANNESBURG—TRADING DEPARTMENTS, 1917-18 TO 1923-24.

(a) LOAN INDEBTEDNESS, ETC., AND PAYMENTS IN AID OF RATES AT 30TH JUNE, 1924.

Department.	Capital Expenditure to 30/6/24.	Capital Votes to 30/6/24.	Loan Debt.	Redemption Fund.	Renewals Fund.
	£	£	£	£	£
Gas Department	44,225	56,657	44,225	23,688	20,504
Electric Department	1,669,888	1,759,356	1,355,042	626,798	246,814
Tramway Department	1,220,444	1,388,117	1,140,967	473,882	180,728
Water Department	589,047	616,402	349,008	176,202	195,343
Abattoir Department	263,933	381,911	209,542	41,049	2,395
Live Stock Market Department	38,919	38,919	32,727	13,015	984
Produce Market Department	134,590	134,590	129,008	43,391	11,085
TOTAL.....£	3,961,046	4,375,952	3,260,519	1,398,025	657,853

(*b*) SUMMARY OF TRADING DEPARTMENTS' TRANSACTIONS, 1917–18 TO 1923–24.

Year.	Gas Department.	Electric Department.	Tramway Department.	Water Department.	Abattoir Department.	Live Stock Market Department.	Produce Market Department.	Total.
				INCOME.				
	£	£	£	£	£	£	£	£
1917–18	29,564	319,512	440,817	223,863	33,569	12,891	36,451	1,096,667
1918–19	34,582	345,721	485,976	251,202	32,189	13,790	38,103	1,201,563
1919–20	37,625	394,219	532,647	267,628	36,016	14,578	47,493	1,330,206
1920–21	42,893	424,722	610,496	268,052	40,489	15,426	44,570	1,446,648
1921–22	44,432	440,519	567,522	275,426	47,491	14,288	36,395	1,426,073
1922–23	44,882	485,246	528,684	267,449	47,236	13,528	36,935	1,423,960
1923–24	46,195	478,704	549,713	293,001	51,971	13,111	35,536	1,468,231
				WORKING EXPENSES.				
	£	£	£	£	£	£	£	£
1917–18	19,775	172,506	311,442	151,980	25,652	7,849	22,929	712,133
1918–19	23,476	207,913	374,174	165,509	23,316	8,612	25,161	828,161
1919–20	25,762	248,774	451,753	175,539	28,840	10,417	27,131	968,216
1920–21	30,825	308,599	629,359	193,085	38,278	11,650	33,373	1,245,169
1921–22	31,196	300,104	517,699	200,949	33,152	10,799	30,663	1,124,562
1922–23	27,186	262,080	464,516	197,871	31,756	8,827	27,958	1,020,194
1923–24	26,657	258,135	464,626	220,044	35,740	9,421	27,611	1,042,234
				GROSS PROFIT.				
	£	£	£	£	£	£	£	£
1917–18	9,789	147,006	129,375	71,883	7,917	5,042	13,522	384,534
1918–19	11,106	137,808	111,802	85,693	8,873	5,178	12,942	373,402
1919–20	11,863	145,445	80,894	92,089	7,176	4,161	20,362	361,990
1920–21	12,068	116,123	– 18,863*	74,967	2,211	3,776	11,197	201,479
1921–22	13,236	140,415	49,823	74,477	14,339	3,489	5,732	301,511
1922–23	17,696	223,166	64,168	69,577	15,481	4,701	8,977	403,766
1923–24	19,538	220,569	85,087	72,957	16,231	3,690	7,925	425,997
				CAPITAL CHARGES.				
	£	£	£	£	£	£	£	£
1917–18	3,457	86,810	73,657	39,008	5,832	1,636	8,590	218,990
1918–19	3,457	89,530	73,067	39,028	7,943	1,636	9,031	223,692
1919–20	3,438	90,217	60,090	38,746	8,245	1,627	9,303	211,666
1920–21	3,602	97,544	66,818	39,976	10,253	2,179	9,324	229,696
1921–22	3,907	116,991	71,455	41,281	13,163	2,554	9,496	258,847
1922–23	3,916	121,832	86,994	36,736	17,821	2,641	9,644	279,584
1923–24	3,888	124,664	92,336	39,861	18,610	2,565	9,993	291,917
				NET PROFITS.				
	£	£	£	£	£	£	£	£
1917–18	6,329	60,114	55,717	32,834	2,085	5,042	4,900	167,021
1918–19	7,642	48,140	38,735	46,532	929	3,542	3,805	149,325
1919–20	8,423	55,157	20,804	53,303	—	2,535	10,997	151,219
1920–21	8,406	18,222	– 87,080*	34,823	– 8,019*	1,597	1,875	– 30,176*
1921–22	9,295	17,017	– 36,580*	33,004	1,181	1,004	– 3,770*	21,151
1922–23	13,730	100,751	– 40,629*	32,604	– 2,340*	2,060	– 677*	105,499
1923–24	15,604	95,344	– 19,701*	32,753	– 2,351*	1,126	– 2,413*	120,362
				PAYMENTS TO GENERAL FUND.				
	£	£	£	£	£	£	£	£
1917–18	6,181	58,062	54,748	32,834	2,085	3,406	3,434	160,750
1918–19	6,973	47,145	38,182	46,532	329	2,942	3,806	145,909
1919–20	7,022	51,355	19,637	53,304	—	2,535	9,747	143,600
1920–21	6,727	12,812	—	34,823	—	1,597	1,424	57,383
1921–22	7,596	14,230	—	33,004	1,181	1,004	—	57,015
1922–23	12,710	92,513	—	32,604	—	2,060	—	139,887
1923–24	14,896	85,422	—	32,753	—	1,126	—	134,197

* Loss.

(iv) MUNICIPALITY OF JOHANNESBURG—ASSESSMENT RATES, 1912–13 TO 1923–24.

Year.	Rate in £1.	Chargeable to Departments.	Chargeable to Property Owners.	Amount of Rates.
	d.	£	£	£
1912–13	2½	27,128	288,498	315,626
1913–14	2⅝	42,959	334,123	377,082
1914–15	2½	38,928	309,670	348,598
1915–16	2¾	42,853	343,539	386,392
1916–17	Land 4¼ / Impr. 1¾	46,014	319,256	365,270
1917–18	Land 4 / Impr. 1¾	43,440	318,643	362,083
1918–19	Land 7	70,361	356,281	426,642
1919–20	Land 7	71,741	371,841	443,582
1920–21	Land 10	102,602	535,356	637,958
1921–22	Land 10	89,064	551,240	640,304
1922–23	Land 7	47,434	438,633	486,067
1923–24	Land 7	51,825	435,126	486,951

4. **Municipality of Pretoria.**—An account of the history and development of Pretoria was given in Chapter I of earlier issues of this *Year Book*. The population of the city in the years 1911, 1918, 1921, and 1926 is reflected in the following table :—

Year.	European.	Other.	Total.
1911	30,488	19,809	50,297
1918	34,033	—	—
1921	36,675	25,359	62,034
1926	42,276*	—	—

*Preliminary unaudited figures.

In the following tables the principal financial statements of the Municipality are summarized for a number of years :—

(i) PRETORIA MUNICIPALITY—LOANS, SINKING FUNDS, AND NET DEBT AT 30th JUNE, 1909 TO 1924.

Year.	Amount Raised.			Redemption Fund.	Net Loan Debt.
	4 % Stock.	4½ % Stock.	Total.		
	£	£	£	£	£
1909	1,000,000	—	1,000,000	31,562	968,438
1910	—	—	—	38,191	961,809
1911	—	—	—	60,835	939,165
1912	—	—	—	87,500	912,500
1913	—	—	—	119,941	880,059
1914	—	750,000	750,000	165,383	1,584,617
1915	—	—	—	211,022	1,538,978
1916	271,500	—	271,500	256,998	1,764,502
1917	—	—	—	303,498	1,718,002
1918	—	—	—	359,679	1,661,821
1919	—	—	—	414,972	1,606,528
1920	—	—	—	476,993	1,544,507
1921	—	—	—	545,428	1,476,072
1922	—	—	—	612,269	1,409,231
1923	—	—	—	675,214	1,346,286
1924	—	—	—	721,489	1,300,011

(ii) PRETORIA MUNICIPALITY—REVENUE AND EXPENDITURE AT 30TH JUNE, 1922 TO 1924.

Description.	Revenue.			Expenditure.		
	1922.	1923.	1924.	1922.	1923.	1924.
	£	£	£	£	£	£
Town Treasurer's Department	—	—	—	12,447	11,037	11,248
Locations	3,268	4,858	1,811	3,112	5,639	672
Public Functions and Mayoral Allowance	—	—	—	1,930	2,355	3,982
Town Clerk's Department	—	—	—	6,206	5,563	5,930
Town Engineer's Department	—	—	—	7,408	6,475	7,303
Streets (Cleaning and Lighting)	—	—	—	11,633	9,909	10,566
Roads	—	—	—	—	—	—
Maintenance of Offices	—	—	—	6,832	6,922	5,550
General Works	—	—	—	81,240	74,973	89,534
Charitable and Relief Works	—	—	—	2,065	1,563	1,466
Fire Brigade	1,426	1,266	1,343	14,040	13,698	12,673
Public Health	897	1,031	2,690	13,583	11,006	13,590
Sanitary	50,935	54,043	56,278	40,174	36,202	40,842
Sewerage	12,512	13,323	14,068	24,706	24,503	18,983
Wash Houses and Baths	4,593	3,215	3,123	5,674	4,398	3,975
Parks and Plantations	3,955	3,814	4,197	22,170	22,803	22,575
Cemeteries	2,692	2,451	2,359	6,489	5,352	5,660
Pensions and Gratuities	—	—	—	6,202	5,032	5,624
Assize	599	375	—	1,482	1,301	—
Dipping	—	—	—	—	—	—
Native Eating House	—	—	—	—	—	—
Grants-in-Aid	13,500	13,500	13,500	5,831	6,362	7,449
Allowances to Employees on Active Service	—	—	—	—	—	—
Licences	16,735	16,948	17,615	—	—	—
Rents	3,037	3,956	4,570	—	—	—
Fees, Fines, etc	1,369	1,426	1,183	—	—	—
Building and Hoarding Fees	717	754	981	—	—	—
Interest	9,636	4,398	9,662	4,717	4,678	4,941
Assessment Rate	139,067	130,232	118,132	—	—	—
Interest on Railway Siding	1,208	805	—	—	—	986
Depreciation	—	—	—	—	—	—
Discounts	—	929	—	—	—	—
Redemption	—	—	—	611	611	—
Insurance	—	—	—	1,000	1,000	1,000
Valuation and Audit	—	—	—	1,329	483	467
Miscellaneous	715	684	1,155	1,726	4,970	5,620
Trading Departments—						
Abattoirs	14,460	14,734	15,654	14,685	13,902	14,460
Cattle Market	1,966	1,582	1,455	1,551	1,717	1,569
Produce Market	9,850	9,756	10,105	7,644	7,746	8,414
Water Supply	61,242	68,326	69,179	41,689	39,335	41,481
Electric Supply	101,013	104,199	99,758	74,201	77,072	92,564
Tramways	88,838	87,565	84,174	98,487	90,174	88,013
Dipping Tanks	883	691	258	639	627	333
Bon-Accord Quarry	—	20,704	28,495	—	20,804	32,913
Native Revenue Account	—	—	8,842	—	—	11,824
TOTAL.....£	545,113	565,565	570,587	521,503	518,212	572,207

(iii) PRETORIA MUNICIPALITY—GENERAL FUND ACCOUNT, 30TH JUNE, 1923 AND 1924.

Liabilities.	1923.	1924.	Capital Outlay and Assets.	1923.	1924.
	£	£		£	£
Loans from General Fund Capital Account	1,264,652	1,362,628	Capital Outlay	1,511,972	1,565,862
Housing Loan for Location Scheme *ex* Provincial Administration	29,680	—	Unexpended Capital Funds	—	—
Loans from Revenue Account	7,425	—			
Temporary Advance from General Revenue towards cost of Concrete Huts at Location	—	—			
Loans from Depreciation Funds	31,680	—			
Non-repayable Contributions	168,121	179,355			
Depreciation Account	—	—			
Revenue Appropriation Account	—	—			
Temporary Advance from General Revenue to meet Capital Expenditure	4,949	23,878			
Loans Repaid	5,465	—			
TOTAL.....£	1,511,972	1,565,862	TOTAL.....£	1,511,972	1,565,862

(iii) PRETORIA MUNICIPALITY—GENERAL FUND ACCOUNT, 30TH JUNE, 1923 AND 1924—*continued.*

Liabilities.	1923.	1924.	Capital Outlay and Assets.	1923.	1924.
	£	£		£	£
Capital Account	—	—	Stocks and Stores on Hand	22,654	23,476
Sundry Creditors	11,455	16,802	Housing Loans	70,603	102,440
Town Lands Purchase Account	—	—	Sundry Debtors	31,247	35,594
Live Stock Contingencies Fund	5,292	4,159	Depreciation Fund	115,284	128,266
Insurance Fund, Workmen's Compensation	9,634	10,431	Net Advances to Trading Departments in respect of Working Expenses and Stores	23,537	33,652
Redemption Fund, Market Loan	—	—	Electric Supply Department	—	—
Redemption Fund, Buildings at Show Grounds	672	672	Cash Invested and in hand	29,230	—
Cattle Market and Abattoirs Insurance Fund	357	389			
Housing Loans	70,902	102,556			
Depreciation Fund	115,284	128,266			
Balance Consolidated Revenue and Expenditure Account	67,334	36,068			
Overdraft	—	24,085			
Funds held on behalf of Departments	—	—			
Reserve for 18 months' Redemption of Proposed New Loan	11,625	—			
TOTAL £	292,555	323,428	TOTAL £	292,555	323,428

(iv) **PRETORIA MUNICIPALITY—GENERAL FUND CAPITAL ACCOUNT AT 30TH JUNE, 1923 AND 1924.**

Expenditure.	1923.	1924.	Income.	1923.	1924.
	£	£		£	£
Sewerage Scheme	319,616	341,483	Loans	1,294,652	1,316,641
Surface Drainage Schemes	179,000	182,520	Loan to Produce Market	8,250	9,988
Canalization	53,390	55,075	Loan—Market Square	30,000	30,000
Street Improvements	371,475	375,943	Loan—Canalization Aapies River	52,296	52,296
Works Department: Quarries, Plant, etc.	84,421	84,566	Non-Repayable Contributions	7,650	7,650
Railway Siding to Industrial Area	13,419	13,419	Natal Soapworks	300	300
Fire Department	36,038	35,910	Surplus Depreciation Transferred	50,664	—
Town Hall and Office Furniture, including Erven in Market Street	68,228	68,868	Revenue and Appropriation Account	61,677	*123,575
Sundry Properties	11,180	10,860	Isolation Hospital	1,534	1,534
Afforestation	5,189	4,954	Temporary Advance from General Revenue to meet Capital Expenditure, pending flotation of New Loan	4,949	23,879
Swimming Baths	19,716	19,651			
Parks, Recreation and Sports Ground	92,388	96,234			
Wash Houses	2,035	2,035			
Isolation Hospital	10,967	10,835			
Disinfection Station	1,181	1,181			
Public Conveniences	6,219	6,019			
Health Department Plant	966	1,061			
Sanitary Department	5,453	5,452			
Refuse Destructor	12,367	12,367			
Locations	55,124	59,509			
Abattoirs, Markets, and Dipping Tanks	108,402	114,272			
Assize Office and Equipment	858	—			
Cemeteries	3,579	3,579			
Mayoral Motor Car	504	500			
Licence Department Offices	—	400			
Native Girls' Hostel	—	2,906			
City Regalia and Robes	—	10			
Proportionate Share of Loan Flotation Expenses	50,257	56,254			
Depreciation Written Off and Sales	—	—			
TOTAL £	1,511,972	1,565,863			
Unexpended Balance	—	—			
£	1,511,972	1,565,863	£	1,511,972	1,565,863

* Includes Surplus Depreciation transferred.

(v) PRETORIA MUNICIPALITY—AGGREGATE BALANCE AT 30th JUNE, 1923 AND 1924.

Liabilities.	1923.	1924.	Capital Outlay and Assets.	1923.	1924.
	£	£		£	£
Loans	2,021,500	2,385,995	Capital Outlay	2,580,113	2,773,572
Housing Loan for Locations Scheme *ex* Transvaal Provincial Administration	29,680	28,715	Unexpended Capital Fund	21,892	—
Temporary Advance from General Revenue to meet Capital Expenditure	5,549	23,879			
Temporary Advance from General Revenue towards cost of construction of Concrete Huts at Locations	—	—			
Purchase Market Concession	7,425	8,928			
Depreciation	259,061	31,721			
Non-repayable Contributions to Capital	271,525	283,529			
Loans Repaid	7,265	10,805			
TOTAL £	2,602,005	2,773,572	TOTAL £	2,602,005	2,773,572
Capital Account Balance	21,892	—	Stocks and Stores	56,712	49,762
Sundry Creditors	25,251	31,213	Redemption Fund	675,214	721,490
Redemption Fund	675,214	721,490	Depreciation Fund	269,022	322,916
Insurance Fund	9,634	10,431	Sundry Debtors	47,815	47,723
Reserve for 18 months Redemption of Proposed New Loan	11,625	—	Cash invested and on hand	37,830	—
			Housing Loans	70,603	102,439
Live Stock Contingencies Fund	5,292	4,159			
Purchase of Town Lands	—	—			
Overdraft Account	—	14,436			
Depreciation Fund	269,022	322,916			
Loans *ex* Revenue, Redeemed	672	672			
Produce Market and Agricultural Show Ground Buildings Loan Redemption	—	—			
Cattle Market and Abattoirs Insurance Fund	357	389			
Housing Loans	70,903	102,556			
Produce Market Loan Redemption	—	—			
Net Balance Revenue and Expenditure	67,334	36,068			
TOTAL £	1,157,196	1,244,330	TOTAL £	1,157,196	1,244,330

(vi) SUMMARY OF TRADING DEPARTMENTS' TRANSACTIONS, 1917–18 TO 1923–24.

Year.	Abattoir.	Live Stock Market.	Water Supply.	Produce Market.	Electric Supply.	Tramways.	Total.
			REVENUE.				
	£	£	£	£	£	£	£
1917–18	8,383	939	37,526	—	66,440	57,616	170,904
1918–19	9,193	767	44,745	6,320	73,963	57,456	192,444
1919–20	12,268	2,053	48,436	8,628	84,110	78,483	233,978
1920–21	13,065	1,958	58,007	10,268	94,258	90,246	267,802
1921–22	14,460	1,966	61,302	9,850	101,013	88,838	277,429
1922–23	14,734	1,582	68,326	9,756	104,199	87,565	286,162
1923–24	15,654	1,455	69,179	10,105	99,758	79,927	276,078
			EXPENDITURE.				
	£	£	£	£	£	£	£
1917–18	11,302	1,193	26,723	—	53,009	62,273	154,500
1918–19	13,393	1,243	27,182	3,485	55,189	60,968	161,460
1919–20	14,452	1,301	32,176	3,956	63,671	77,914	193,470
1920–21	16,258	1,459	35,648	7,071	75,987	91,763	228,186
1921–22	14,685	1,551	41,749	7,644	74,201	98,487	238,317
1922–23	13,902	1,716	39,335	7,746	77,072	90,174	229,945
1923–24	14,460	1,569	41,481	8,413	92,564	81,225	239,712

5. **Other Large Municipalities.**—The following tables give a summary of the revenue and expenditure of a number of other large municipalities in the Union, in respect of the year 1923–24 :—

REVENUE AND EXPENDITURE OF CERTAIN MUNICIPALITIES, 1923–24.

(*a*) PIETERMARITZBURG, BLOEMFONTEIN, PORT ELIAZBETH, EAST LONDON, KIMBERLEY, GERMISTON, AND BENONI—REVENUE AND EXPENDITURE, 1923–24.

Heading.	Pieter-maritz-burg.	Bloem-fontein.	Port Elizabeth	East London.	Kimber-ley.	Ger-miston.	Benoni.
REVENUE.							
	£	£	£	£	£	£	£
Rates	68,214	95,394	106,361	73,905	70,258	30,293	28,360
Sanitary Fees	1,798	367	9,234	—	4,468	36,269	28,346
Water	22,770	49,494	45,697	26,994	60,193	17,074	13,439
Licences	11,245	2,088	1,875	4,366	2,862	9,134	8,096
Abattoirs	2,589	5,725	3,717	3,078	—	4,552	3,864
Assize	33	—	208	33	578	—	—
Building Plan Fees	332	211	—	—	—	167	166
Cemeteries	292	345	848	643	1,047	1,113	327
Estate	8,954	7,075	2,311	14,342	4,926	271	—
Fines	1,901	473	—	—	698	542	729
Fire Brigade	541	276	331	218	158	458	231
Locations	1,217	13,305	3,295	6,801	6,336	8,191	6,272
Markets	10,114	8,220	17,785	10,539	5,545	2,899	1,777
Pounds	79	1,124	38	319	159	424	335
Town Hall, Parks, etc.	4,566	3,091	12,155	5,899	5,210	800	388
Interest	19,161	12,323	12,639	—	—	1,087	527
Electric Supply	48,506	56,020	69,018	50,299	31,283	—	21,464
Tramways and Buses	21,670	16,803	—	32,892	—	3,337	6,815
Other Revenue	39,824	2,675	11,519	17,273	2,060	1,574	466
TOTAL.....£	263,806	275,009	297,031	247,601	195,781	118,185	121,602
EXPENDITURE.							
	£	£	£	£	£	£	£
Administration	11,514	14,725	8,748	6,366	10,906	7,539	9,947
Sanitary	17,086	14,378	23,033	11,617	22,868	29,560	22,517
Public Health	5,431	9,640	10,183	6,970	2,999	2,301	2,574
Streets and Bridges	17,081	6,314	26,532	33,810	20,285	9,223	15,751
Street Lighting	3,500	2,500	5,473	3,008	2,469	2,074	1,720
Water	9,001	18,501	15,482	32,618	56,301	12,851	8,994
Electric Supply	30,508	32,031	53,049	46,329	16,280	—	9,902
Tramways and Buses	21,339	22,983	—	32,437	—	3,803	8,075
Abattoirs	1,266	4,116	3,242	2,311	—	2,826	3,056
Assize	—	—	168	—	253	—	—
Cemeteries	277	1,066	1,660	1,323	2,262	1,106	1,151
Estate	1,638	3,989	530	2,385	555	—	—
Fire Brigades	2,959	2,731	6,837	7,210	3,798	3,422	2,714
Locations	—	14,191	2,598	7,055	5,396	6,037	5,505
Markets	7,437	5,341	13,057	5,471	3,403	1,814	1,988
Pounds	24	2,000	103	248	155	322	646
Town Hall, Parks, etc.	5,349	12,471	15,623	15,613	5,207	5,945	3,950
Mayoral Allowance	600	750	750	500	675	500	480
Public Entertainments	1,174	712	1,271	1,615	623	108	111
Grants to Hospitals, etc.	4,904	6,741	3,971	2,110	1,698	2,625	1,775
Elections	26	277	278	70	54	103	129
Valuations	683	383	223	123	84	288	527
Legal and Audit	451	1,172	966	494	702	518	314
Insurance	479	131	859	137	714	380	505
Pensions and Gratuities	3,430	3,380	1,346	2,107	1,234	750	—
Loan Charges—							
Interest	54,684	67,857	74,603	6,796	5,520	8,287	6,000
Redemption	12,472	20,705	12,730	1,805	2,607	6,754	2,242
Other Loan Charges	54	994	—	174	7,621	—	—
Other Expenditure	33,003	—	15,491	22,951	11,076	12,677	90
TOTAL.....£	246,370	270,079	298,806	253,653	185,745	121,813	110,663

REVENUE AND EXPENDITURE OF CERTAIN MUNICIPALITIES, 1923–24—*continued.*

(*b*) KRUGERSDORP, BOKSBURG, POTCHEFSTROOM, UITENHAGE, GRAHAMSTOWN, ROODEPOORT MARAISBURG, BRAKPAN—REVENUE AND EXPENDITURE, 1923–24.

Heading.	Krugersdorp.	Boksburg	Potchefstroom.	Uitenhage	Grahamstown.	Roodepoort–Maraisburg.	Brakpan.
REVENUE.							
	£	£	£	£	£	£	£
Rates	11,499	14,396	11,959	11,155	17,289	15,018	23,237
Sanitary Fees	34,661	24,623	8,493	4,067	—	13,960	14,237
Water	11,739	10,720	—	8,526	7,665	6,807	7,544
Licences	5,478	5,863	3,283	493	388	2,585	2,991
Abattoirs	3,413	—	209	856	1,392	1,984	1,416
Assize	—	—	—	—	—	—	—
Building Plan Fees	139	94	37	—	—	67	165
Cemeteries	368	779	115	20	152	139	—
Estate	419	—	1,040	2,053	4,242	153	—
Fines	458	472	332	—	30	201	178
Fire Brigade	189	176	—	—	31	94	135
Locations	4,777	5,586	2,732	2,758	499	1,585	—
Markets	2,925	1,650	789	1,430	3,815	7	756
Pounds	630	592	367	149	174	243	363
Town Hall, Parks, etc	842	4,123	1,277	362	2,976	1,455	97
Interest	—	147	660	—	6	669	1,783
Electric Supply	17,701	11,118	10,663	10,366	—	8,400	8,476
Tramways and Buses	—	6,992	—	—	—	—	2,489
Other Revenue	651	379	1,061	278	846	374	223
TOTAL £	95,889	87,710	43,017	42,513	39,505	53,741	64,090
EXPENDITURE.							
	£	£	£	£	£	£	£
Administration	6,240	3,731	2,748	1,481	1,322	3,090	7,243
Sanitary	23,252	22,283	4,913	4,456	1,284	9,972	5,513
Public Health	3,778	2,466	259	1,020	1,709	2,424	1,480
Streets and Bridges	11,033	9,272	3,885	6,070	11,120	8,359	10,391
Street Lighting	2,592	495	582	1,634	1,439	1,110	910
Water	11,757	8,246	985	5,613	3,463	4,576	4,170
Electric Supply	9,253	7,878	8,674	5,373	—	5,791	3,875
Tramways and Buses	—	7,621	—	—	—	—	3,756
Abattoirs	2,134	—	90	411	1,326	1,771	1,138
Assize	—	—	—	—	2	—	—
Cemeteries	1,369	1,008	379	79	213	470	12
Estate	567	—	465	1,543	302	3,331	—
Fire Brigades	2,433	2,053	555	49	304	1,038	195
Locations	4,555	5,725	1,980	1,145	1,038	1,595	—
Markets	2,509	1,276	645	490	1,904	—	505
Pounds	275	396	337	105	238	396	433
Town Hall, Parks, etc	4,830	—	3,150	1,560	2,212	160	833
Mayoral Allowance	446	6,569	147	98	199	400	425
Public Entertainments	—	400	75	—	—	—	91
Grants to Hospitals, etc	1,086	—	1,225	232	670	420	363
Elections	28	988	74	41	15	75	85
Valuations	188	75	14	—	54	—	20
Legal and Audit	240	22	283	136	225	397	245
Insurance	981	394	33	106	66	122	462
Pensions and Gratuities	1,436	284	829	878	69	—	—
Loan Charges—							
Interest	8,661	1,234	1,109	5,197	4,834	114	5,309
Redemption	7,210	3,710	3,257	2,823	3,235	413	3,453
Other Loan Charges	124	186	—	—	—	701	1,650
Other Expenditure	662	4,450	3,437	1,605	1,687	2,047	3,683
TOTAL £	107,639	90,762	40,130	42,145	38,930	48,772	56,240

CHAPTER IV.

EDUCATION.

§ 1. Higher Education.

1. **History and Development of Higher Education in South Africa.**—The first beginnings of a system of higher education in South Africa are to be found in the establishment of the South African College at Cape Town in 1829. It was not, however, until the passing of the University Act of 1873 by the Cape Parliament and the establishment of the University of the Cape of Good Hope that any notable advance was made.

A short summary of the history and development of the University of the Cape of Good Hope up to its dissolution in 1918 is contained in the first three issues of the *Year Book*. Statistics are also given therein as to the examinations conducted under that University.

2. **University of South Africa.**—(i) *General.*—The University of South Africa from the 2nd April, 1918, became the legal successor of the University of the Cape of Good Hope, the headquarters of which have been removed from Cape Town to Pretoria, and which embraces the following constituent colleges:—Grey University College, Bloemfontein; Huguenot University College, Wellington; Natal University College, Pietermaritzburg; Rhodes University College, Grahamstown; University College, Potchefstroom; and the Transvaal University College, Pretoria. In the case of each College there is a Governing Council responsible for general administration, and academic matters and discipline are controlled by the College Senate, consisting entirely or mainly of the Professors on the staff, the executive functions being discharged by the Registrar, or, in some cases, by the Rector or Master.

The government and executive authority of the University are vested in a Council, consisting of eight members appointed by the Governor-General, four members elected by Convocation, and one member appointed by the Council and one by the Senate of each constituent college. Provision is also made for the appointment of a representative of any Government or Administration outside the Union which contributes to the University such funds as may be presented by statute. The Council holds office for six years.

The University Senate consists of the heads of recognized departments of study at the constituent colleges, and controls the curricula, syllabuses of study and degree and diploma examinations of the University, subject to the authority of the Council.

There have also been established two bodies, one named the "Joint Matriculation Board," consisting of representatives of the four Universities (South Africa, Cape Town, Stellenbosch, and Witwatersrand), the Provincial and Union Education Departments, and of the teachers of public and private secondary schools, which is charged with the control and conduct of the matriculation examination, and the other named the "Joint Committee for Professional Examinations," for the control and conduct of the examinations in law (other than degree examinations), surveying, and the final examination for patent agents. The Registrar of the University of South Africa is *ex officio* Secretary to the Joint Matriculation Board and the Joint Committee for Professional Examinations. His address is P.O. Box 392, Pretoria.

OFFICERS OF THE UNIVERSITY OF SOUTH AFRICA.

Chancellor	Field-Marshall H.R.H. the Duke of Connaught and Strathearn, P.C., K.G., K.T., K.P.
Vice-Chancellor	Sir John E. Adamson, K.B., M.A., D.Lit.
Chairman of Senate	Professor P. J. du Toit, B.A., D.Med.Vet., Ph.D.
Deans of Faculties—	
Arts	Professor F. Postma, Litt.Dr.
Science	Professor R. B. Denison, M.A., D.Sc., Ph.D.
Law	Advocate F. B. Burchell, B.A., LL.B.
Agriculture	Professor J. C. Ross, B.A., M.Sc., Ph.D.
Commerce	Professor E. H. Brookes, M.A., D.Litt.
Veterinary Science	Professor Sir Arnold Theiler, K.C.M.G., D.Med.Vet., D.Sc.
Engineering	Professor J. H. Neal, A.R.C.Sc., A.M.I.Mech.E., A.M.I.C.E., A.F.Ae.S.
Registrar	C. C. Grant, M.B.E., M.A.
President of Convocation	Professor H. Reinink, Litt.Dr.

(ii) *Grey University College.*—The College was founded in 1855 by Sir George Grey but it was not until 1904 that the classes were organized in such a way as to permit of the separate constitution of a University College, which took place in 1907. The erection of the College buildings was completed in 1909, and in 1910 the University College was incorporated by statute. The work undertaken comprises the usual preparation for the examinations of the University of South Africa in literature and science, survey, education, and law, including preliminary classes for the study of medicine, engineering, agriculture, commerce, and theology.

The College has facilities for research in the departments of botany, chemistry, physics, geology, and zoology. The herbarium of the botany department is the regional herbarium for the Orange Free State and Basutoland and for the Union Botanical Survey.

(iii) *Huguenot University College.*—The College dates back to 1874, when, as the Huguenot Seminary, it was founded in Wellington by the late Rev. Andrew Murray, D.D. It was formally incorporated by Act of Parliament in 1907 as a College for women students (with the right of retaining male students for a limited period); and is named in the *University of South Africa Act*, 1916, as one of the constituent Colleges of the University. An amendment to the Charter in 1920 inserted the word "University" in the name of the College, and opened its doors to male students from Wellington district. Matriculated students are prepared for the B.A., B.Sc., M.A., and M.Sc. degrees of the University of South Africa and for the Higher Teachers', the Lower Secondary, and Domestic Science Diplomas of the University of South Africa. The College also gives a diploma in horticulture.

(iv) *Rhodes University College.*—The Rhodes University College was established in 1904, when it took over the college department of St. Andrew's College School, which had carried on university work in Grahamstown since 1878 with state-aided lecturers, who were transferred to the Rhodes College. A sum of £50,000 was set apart by the Rhodes Trustees towards the establishment of the College, augmented by £10,000 raised locally, and also by a bequest of £25,000 from the late Alfred Beit and £5,000 from the De Beers Company. Teaching is carried on temporarily in the Drostdy Buildings. Plans for the complete college building scheme have been prepared, and are being carried out as funds permit.

The College is a residential institution, and there are houses and dining halls for men and women students. Courses are given in all the usual arts and science subjects, as well as for the lower and higher diplomas in education, also the first year courses in engineering and medicine and first and second year commerce. Bursaries and scholarships are available.

Facilities exist for enabling students to acquire a practical knowledge of various sciences. Details of the work performed in a number of these were given in previous issues of this *Year Book.*

The Grahamstown School of Art has been taken over as a department of this College.

(v) *Transvaal University College.*—In 1908, university classes in arts, science, and law were established at Pretoria by the Transvaal Government, and were placed under the control of the Council of the Transvaal University College at Johannesburg, the constitution of that body being altered so as to give Pretoria equal representation. A separation took place in 1910, the Johannesburg section being re-incorporated as the South African School of Mines and Technology, whilst the Pretoria section retained the name of the Transvaal University College. In 1917 was instituted a Faculty of Agriculture, financial provision for which (an endowment of £100,000) had been made by the last Parliament of the Transvaal in 1910. The following faculties have since been established: 1918, Theology; 1919, Commerce and Public Administration; 1920, Veterinary Science; 1923, Music. The original college buildings were erected and equipped at a cost of £50,000; those of the Faculty of Agriculture at a cost of £100,000; while those of the Faculty of Veterinary Science, now in process of erection, involve an expenditure of £150,000. An administration block and additional science laboratories, costing £40,000, have been completed and occupied.

Courses are provided for all degrees and diplomas of the University of South Africa in arts, science, agriculture, veterinary science, law, divinity, education, music, commerce, and public administration.

The Faculty of Veterinary Science, under the headship of Sir Arnold Theiler, works in the closest co-operation with the Government Research Laboratories at Onderstepoort, and provides a five-year course leading to the degree of B.V.Sc., a feature being the training in Tropical Diseases. The Faculty of Agriculture, although not yet fully developed in all its branches, gives a four-year course leading to the degree of B.Sc. (Agric.), and provides as options an advanced technical training in most of the branches of agriculture practised in South Africa, such as horticulture, animal husbandry, dairying, agronomy, entomology, botany, and agricultural engineering.

Important research work has been done in various directions during recent years at this institution, which provides the necessary facilities to students and members of the staff.

(vi) *Natal University College.*—The College was incorporated by Act of the Natal Parliament of 1909, and teaching was started in 1910 in the Town Hall of Pietermaritzburg until the college buildings at Scottsville were erected in 1912, on a site of forty acres presented by the municipality for the purpose. The cost of the original buildings and equipment, amounting to about £60,000, was defrayed by the Government. Lately, additional buildings with equipment, including a women-students' hostel, have been provided at a cost of £37,000, met from Union loan funds. The teaching staff includes sixteen professors and seven lecturers.

In addition to the Pietermaritzburg establishment, classes for the commerce, engineering, and fine arts degrees are conducted at the Natal Technical College, Durban, under the direction of four professors and one lecturer.

(vii) *Potchefstroom University College.*—The Potchefstroom University College developed out of the literary department of the "Theologiese School van de Gereformeerde Kerk," which was founded the 29th November, 1869, at Burghersdorp, Cape Province, and solely supported by the Gereformeerde Kerk. In February, 1905, this school with its literary department was transferred to Potchefstroom. In April, 1919, a Government subsidy was granted to this literary department, whereby a complete separation took place between the two departments. The College was placed under the management of its own council under the present name. In June, 1921, the *Potchefstroom University College (Private) Act* was passed by Parliament. On the 6th July, 1921, it was incorporated, by proclamation, as a constituent college of the University of South Africa. The work undertaken comprises the preparation for the B.A., B.Sc., M.A., M.Sc., and B.D. examinations of the University of South Africa and the Transvaal teachers' examinations in co-operation with the local Normal College.

3. **University of Cape Town.**—The University of Cape Town was created in 1916 by an Act of Parliament which provided for the incorporation of the South African College (founded 1829, incorporated 1837) as a University on 2nd April, 1918 (see previous issues of this *Year Book*).

The University provides for the residence as well as the teaching of students, and confers degrees in the faculties of arts, science, engineering, law, commerce, music, education, and medicine, and diplomas and certificates in teaching, music, commerce, and public health. The degrees and diplomas of the Medical School are recognized for purposes of registration throughout the Union and Southern Rhodesia, and the degrees in law are accepted for admission to the bar. There is also attached to the University a school of African Life and Languages for the special study of native languages and customs. In 1922 the South African College of Music was amalgamated with the University as its department of music.

The first block of the new buildings which are to be erected for the University at Groote Schuur (in terms of its Act of Incorporation) was commenced in 1922.

In close proximity to the new University there is to be erected a public hospital of 800 beds, which will serve also as a clinic for the Medical School. The institution receives liberal support from the State, the Corporation of the City of Cape Town, and the Cape Divisional Council.

Provision is made for research work in the faculty of science, in civil, electrical, chemical and mechanical engineering, and in the faculty of medicine (anatomy, physiology, bacteriology, pathology, and pharmacology).

OFFICERS OF THE UNIVERSITY OF CAPE TOWN.

Visitor	His Excellency the Governor-General.
Chancellor	H.R.H. Edward, Prince of Wales, K.G., G.C.M.G., G.B.E., M.C.
Principal and Vice-Chancellor	Sir J. Carruthers Beattie, Kt., D.Sc., F.R.S.E. (Chairman of Senate).
Registrar	W. G. R. Murray, M.A.
President of Convocation	Advocate R. W. Close, K.C., B.A., LL.B., M.L.A.

4. **University of Stellenbosch.**—The Victoria College developed out of the Stellenbosch Gymnasium, which was founded in 1866, and in connection with which an Arts Department was established in 1874. An Act of incorporation was passed by Parliament in 1881.

By the *University of Stellenbosch Act*, passed by the Union Parliament in 1916, the College, on the 2nd April, 1918, was incorporated as the University of Stellenbosch, and in addition to fulfilling its previous functions is entitled to examine its own students and grant degrees. Provision is made for courses leading to degrees and diplomas in the

faculties of arts, science, agriculture, law, theology, education, and commerce. There are 37 professors, 28 lecturers, and 8 other teachers on the staff. The number of students in June, 1925, was 970, of which 460 were accommodated in University Hostels. A special feature of this University is its Faculty of Agriculture, which makes provision for the training of future farmers and agricultural experts, besides providing special courses in agriculture for teachers and courses in domestic science. Extension work is carried on by members of the faculty in collaboration with the Department of Agriculture.

Research work is undertaken in practically every department of study at the University, including education, psychology, literature, geography and history (in the latter cases particularly from the South African economic standpoint). In 1923 the University commenced the publication of the results of scientific investigations undertaken in different branches of study by members of the teaching staff, under the title of *Annals of the University of Stellenbosch—Annale van die Uniwersiteit van Stellenbosch.*

OFFICERS OF THE UNIVERSITY OF STELLENBOSCH.

Chancellor	The Rev. Professor P. G. J. de Vos, D.Litt.
Vice-Chancellor	The Rev. Professor A. Moorrees, Litt.D.
President of Convocation	S. F. N. Gie, B.A., Ph.D.
Chairman of Senate	S. F. N. Gie, B.A., Ph.D.
Registrar	D. J. Kriel, B.A.

5. **University of the Witwatersrand.**—This institution has developed out of the South African School of Mines at Kimberley, which was transferred to Johannesburg in 1903 under the name of the Transvaal Technical Institute. In 1906 it was renamed the Transvaal University College, and in 1908 took over the arts and science classes which had been established in Pretoria. In 1910 a further change took place, the Pretoria classes being incorporated as a separate body which retained the title of Transvaal University College, the Johannesburg institution receiving the name of South African School of Mines and Technology, and being restricted to the departments of applied science and technology. During the year 1916 arts and science departments were organized in order to enable the institution to participate fully as a constituent College of the new University of South Africa. On the 20th September, 1920, the name of the South African School of Mines and Technology was changed to University College, Johannesburg. In 1921 Parliament passed the *University of the Witwatersrand, Johannesburg* (*Private*) *Act*, incorporating the College as a University, with effect from 1st March, 1922. The University has faculties of arts, science, medicine (including dentistry), commerce, engineering (including mining and metallurgy, mechanical and electrical engineering, civil engineering, chemical technology, and architecture) and law. There are also departments of education, music, Bantu studies, and actuarial mathematics.

A considerable amount of original research work has been carried out at the University, especially in the departments of metallurgy and geology; in the latter, the composition and origin of the auriferous conglomerates of the Witwatersrand have been investigated, and miscellaneous research has been done in mineralogy and petrology. In the department of philosophy an educational survey of the schools of the Rand area by means of Intelligence Tests was undertaken during 1924 and 1925, with the co-operation of the Witwatersrand Council of Education and the Transvaal Education Department. Ample facilities exist for research in mechanical engineering, zoology, botany, physics, and all the departments of the faculty of medicine, and a considerable amount of work has been done in each of these departments. In the departments of chemistry and analytical and research chemistry, special laboratories have been equipped for research purposes. The erection of the new buildings at Milner Park is proceeding, and nearly all the departments, thoroughly equipped, have already moved in.

OFFICERS OF THE UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG.

Chancellor	H.R.H. Prince Arthur of Connaught, K.G., K.T., K.P.
Vice-Chancellor	Sir Robert Kotzé, Kt., B.A.
Chairman of the Council	Sir W. Dalrymple, K.B.E.
Principal	Sir Wm. Thomson, Kt., M.A., B.Sc., LL.D., F.R.S.E.
President of Convocation	Professor C. M. Drennan, M.A.
Registrar	H. W. J. van der Brugge, M.A., LL.B., J.P.

6. **Statistics of Teaching Universities and University Colleges.**—The tables hereunder give (i) comparative statistics of Higher Education from the year 1910, and (ii) in respect of each Teaching University and College the dates of foundation and incorporation, the number of Professors, Lecturers, and Assistants, the number of Students in 1924 and the expenditure for that year; also the annual value of bursaries granted by the College.

(i) STATISTICS OF HIGHER EDUCATION IN THE UNION, 1910 TO 1924.

Year.	No. of Students. at Close of Year.	State Expenditure.*	Expenditure per Student.	No. of Professors.	No. of Lecturers, etc.	Total Value of Bursaries held.
		£	£			£
1910.....	1,171	79,657	68·0	—	—	6,780
1911.....	1,125	97,429	86·6	—	—	—
1912.....	1,203	102,368	85·1	99	83	—
1913.....	1,285	104,293	81·2	102	94	16,592
1914.....	1,208	130,800	108·3	102	91	—
1915.....	1,155	107,790	93·3	102	91	—
1916.....	1,355	109,784	81·0	100	99	20,546
1917.....	1,618	124,610	77·0	100	103	22,488
1918.....	2,069	132,600	64·1	115	137	23,322
1919.....	2,429	176,346	72·6	125	145	26,220
1920.....	2,946	230,570	78·3	147	172	38,210
1921.....	3,389	277,470	81·8	173	205	33,167
1922.....	3,804	254,600	66·9	183	249	35,740
1923.....	4,166	270,550	64·9	197	299	35,440
1924.....	4,698	287,316	61·1	203	334	32,838

* Including head office administration and bursaries.

(ii) GENERAL STATISTICS IN REGARD TO TEACHING UNIVERSITIES AND CONSTITUENT COLLEGES OF THE UNIVERSITY OF SOUTH AFRICA, 1924.

College.	Year of Foundation and Incorporation.	Current Expenditure for Year 1924.	Number of Professors.	Number of Lecturers and Assistants.	Number of Students at End of 1924.	Total Value of Bursaries held in 1924.
		£				£
University of Cape Town..	1829 (Incorporated 1837)*	124,854	43	120	1,526‖	7,406
University of Stellenbosch	1866 (Incorporated 1881)†	64,799	37	33	711	4,061
University of the Witwatersrand	1903 (Incorporated 1922)‡	130,254	32	76	1,154	8,844
University of South Africa.	1918§					
Constituent Colleges—						
Grey University College, Bloemfontein	1855 (Incorporated 1910)	23,453	12	10	254	1,717
Huguenot Universty College, Wellington	1874 (Incorporated 1907)	10,297	7	8	101	1,521
Rhodes University College, Grahamstown	1904	36,940	14	20	291	2,285
Transvaal University College, Pretoria	1908	56,879	35	48	756	3,420
Natal University College, Pietermaritzburg	1909	20,116	16	10	264	2,459
Potchefstroom University College	1905 (Incorporated 1921)	12,625	7	9	156	1,125
TOTAL.....	—	480,217	203	334	5,213‖	32,838

* As the South African College. Constituted the University of Cape Town on the 2nd April, 1918.
† As the Victoria College. Constituted the University of Stellenbosch on 2nd April, 1918.
‡ As the University College, Johannesburg. Constituted the University of the Witwatersrand on the 1st March, 1922.
§ On the dissolution of the University of the Cape of Good Hope (founded 1873).
‖ Includes 515 music students.

7. **Examinations under the New University Organization.**—The examining bodies created under the new University system in the Union are the Universities of South Africa, Cape Town, Stellenbosch, and the Witwatersrand, the Joint Matriculation Board, and the Joint Committee for professional examinations. The results of the examinations conducted by these bodies during the year 1924 are given in the following tables :—

(i) JOINT MATRICULATION BOARD—RESULT OF EXAMINATIONS, 1924.

PROVINCE.	Matriculation.					
	Interim Regulations.			New Regulations.		
	Candidates.	Passed.	Failed.	Candidates.*	Passed.*	Failed.*
			%			%
Cape of Good Hope†..	1,774	1,004	43·4	390	94	75·8
Natal.....	323	174	46·1	180	31	80·3
Transvaal†.....	198	96	51·5	515	71	86·2
Orange Free State.....	678	392	42·2	112	24	78·6
Union.....	2,973	1,666	43·9	1,197	220	81·6
Outside Union.....	47	24	48·9	73	16	78·1
GRAND TOTAL.....	3,020	1,690	44·0	1,270	236	81·4

PROVINCE.	School Leaving Certificate.					
	Interim Regulations.			New Regulations.		
	Candidates.	Passed.	Failed.	Candidates.*	Passed.*	Failed.*
			%			%
Cape of Good Hope...	492	212	56·9	25	2	92·0
Natal.....	2	1	50·0	1	—	100·0
Transvaal.....	14	2	85·7	6	2	66·6
Orange Free State.....	396	160	59·5	4	1	75·0
Union.....	904	375	58·5	36	5	86·1
Outside Union....	6	1	83·3	—	—	—
GRAND TOTAL.....	910	376	58·7	36	5	86·1

* Complete Examination.

† In addition there were 1,201 candidates for the Transvaal Secondary School Certificate Examination (Stage II), of whom 54·7 per cent. passed, and 567 candidates for the Cape Departmental Secondary School Senior Certificate, of whom 70 per cent. passed. These examinations are recognized as equivalent to the Matriculation Examination for purposes of exemption therefrom.

(ii) DEGREES GRANTED, 1923 AND 1924.

Heading.	1924.					1923. Total.
	University of South Africa.	University of Cape Town.	University of Stellenbosch.	University of the Witwatersrand.	Total.	
Graduated—						
M.B., Ch.B.	—	12	—	—	12	6
LL.D.	—	—	—	—	—	—
Ph.D.	—	2	1	—	3	2
D.Litt.	1	—	—	—	1	1
D.Sc.	1	1	1	1	4	2
LL.B.	18	4	2	4	28	15
M.Sc.	10	5	8	2	25	20
M.Sc. (Agriculture)	—	—	—	—	—	1
M.Sc. (Engineering)	—	1	—	—	1	1
B.Sc. (Agriculture)	10	—	5	—	15	9
B.Sc. (Engineering)	—	11	—	12	23	21
B.Sc. (Pure Science)	59	12	27	16	114	104
B.D.	—	—	1	—	1	2
M.A.	13	17	9	3	42	39
B.A.	149	82	67	27	325	328
M.Educ.	1	—	—	—	1	2
B.Educ.	—	13	4	—	17	9
B.Com.	9	2	—	4	15	5
B.Econ.	5	—	—	—	5	4
B.Sc. Engineering (admitted under the provisions of par. 86 of Statute I).	—	—	—	1	1	2
Admitted under the Statutes	—	—	—	—	—	1
Honorary Degrees	4	—	2	1	7	7
B.V.Sc.	8	—	—	—	8	—
TOTALS.	288	162	127	71	648	581

(iii) JOINT COMMITTEE FOR PROFESSIONAL EXAMINATIONS—UNIVERSITY OF SOUTH AFRICA—RESULT OF EXAMINATIONS, 1923 AND 1924.

Examination.	Number of Passes.					
	1923.			1924.		
	Part I.	Part II.	Final.	Part I.	Part II.	Final.
Law Certificate Examination	122	83	—	124	106	—
Union Civil Service Lower Law	115	34	—	82	57	—
Union Civil Service Higher Law	—	—	23	—	—	23
Rhodesian Civil Service Lower Law	19	5	—	17	11	—
Land Surveying Examination	8	11	—	3	8	—
Patent Agents	—	—	—	—	—	—
Advocates, Admission	—	—	3	—	—	2

8. **Financial Statistics: Higher Education.**—The subjoined tables give particulars as to expenditure by Government and from University and College Funds on Higher Education in the Union, and as to fees received during the years 1919 to 1924:—

(i) EXPENDITURE ON HIGHER EDUCATION—GENERAL, 1919 TO 1924.

HEADING.	1919.	1920.	1921.	1922.	1923.	1924.
Administration (Union Education Department)—	£	£	£	£	£	£
Government	5,000	5,600	7,000	7,000	7,000	7,000
**Joint Matriculation Board*—*						
Government	—	—	—	—	—	—
Other Funds	6,788	8,635	9,485	11,640	11,350	12,935
†*Joint Professional Committee*—						
Government	171	350	—	—	—	—
Other Funds	1,363	1,550	1,980	2,250	2,640	2,539
Bursaries, Scholarships, and Grants to Intending Teachers—						
Government	17,620	19,700	15,610	13,095	13,750	9,067
University Funds	8,388	18,510	18,470	22,645	21,690	23,771
TOTAL.....£	39,330	54,345	52,545	56,630	56,430	55,312

* Established in 1918 in terms of Section 16 (1) of Act No. 12 of 1916.
† Established in 1918 in terms of Section 23 (1) of Act No. 12 of 1916.

(ii) EXPENDITURE ON HIGHER EDUCATION—UNIVERSITIES AND COLLEGES, 1919 TO 1924.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Cape Town University—	£	£	£	£	£	£
Government	35,700	53,115	69,860	53,810	57,060	62,139
University Funds	40,200	39,485	42,145	47,900	57,400	62,716
Stellenbosch University—						
Government	28,150	33,230	42,100	42,800	43,790	40,205
University Funds	16,100	19,590	25,715	25,140	26,760	24,595
University of the Witwatersrand—						
Government	26,100	40,835	45,165	48,600	54,482	67,125
University Funds	20,150	22,990	24,215	42,635	48,203	63,128
University of South Africa, Central Office—						
Government	5,375	6,500	5,985	5,500	5,700	7,300
University Funds	20,150	27,875	31,060	27,090	26,790	27,307
Transvaal University College—						
Government	21,900	26,145	36,030	30,490	33,460	30,618
College Funds	5,800	11,475	16,040	15,830	21,375	26,261
Natal University College—						
Government	7,150	9,000	13,380	11,160	12,170	13,035
College Funds	2,840	4,325	4,620	3,200	5,685	7,080
Rhodes University College—						
Government	12,100	13,250	17,645	16,340	16,000	18,934
College Funds	8,400	9,100	9,085	8,965	14,430	18,005
Grey University College—						
Government	12,600	15,945	16,610	15,700	16,300	17,813
College Funds	2,750	2,955	3,835	3,550	3,360	5,641
Huguenot University College—						
Government	4,480	5,200	6,340	6,640	6,840	7,143
College Funds	2,090	2,650	2,995	3,460	3,025	3,155
Potchefstroom University College—						
Government	—	—	—	4,000	4,000	6,938
College Funds	—	—	—	6,500	6,545	5,686
TOTAL.....£	272,035	343,665	412,825	419,310	463,375	514,824

(iii) FEES RECEIVED—INSTITUTIONS CONNECTED WITH HIGHER EDUCATION IN THE UNION, 1919 TO 1924.

Institution.	1919.	1920.	1921.	1922.	1923.	1924.
University of South Africa—	£	£	£	£	£	£
Head Office	15,429	18,855	20,912	20,870	23,400	24,849
Transvaal University College	3,320	4,085	6,836	7,977	11,303	14,290
Natal University College	2,270	2,816	2,945	3,286	3,623	4,427
Rhodes University College	2,018	2,558	2,505	2,725	5,777	7,180
Grey University College	1,874	1,926	2,296	3,250	4,531	5,188
Huguenot University College	783	927	910	1,001	1,486	1,779
Potchefstroom University College	—	—	—	1,317	1,970	2,611
TOTAL, UNIVERSITY OF SOUTH AFRICA..£	25,694	31,167	36,404	40,426	52,090	60,324
University of Cape Town	23,434	23,297	24,953	26,143	34,534	39,967
University of Stellenbosch	12,479	13,698	14,594	14,926	16,817	17,218
University of the Witwatersrand	8,233	15,500	17,088	23,797	29,304	33,597
TEACHING UNIVERSITIES.....£	44,146	52,495	56,635	64,866	80,655	90,782
Joint Matriculation Board	7,088	9,004	9,833	11,433	12,119	12.965
Joint Professional Committee	1,343	1,624	1,977	2,365	2,585	2,755
ALL INSTITUTIONS.....£	78,271	94,290	104,849	119,090	147,449	166,826

9. **Extension Facilities at University Institutions.**—*The University of Cape Town* instituted in 1921 a course of extension lectures in various towns of the Cape Province. Lectures by members of the teaching staff of the University have been given, by invitation, at various towns as far as Kimberley, on subjects selected by a committee in each of the towns visited. In addition to these lectures outside the Cape Peninsula, courses open to the public, apart from the ordinary degree courses, have been given at the University. For some years past there has been a course of popular lectures on the motor-car, the subject matter of the lectures being suitable for owner-drivers having no knowledge of motor-car engineering. Special courses of public lectures have been given during recent sessions on aeronautics, aesthetics, irrigation, and other subjects. In 1923 and 1924 the University provided vacation courses of lectures on African life and languages, specially arranged for missionaries, magistrates, native commissioners, and others whose vocation brings them into immediate contact with natives. During the summer vacations, courses primarily for secondary school teachers have been given from time to time on subjects suitable for school purposes, and these attract teachers from various parts of the Union; lectures for teachers n schools in the Cape Peninsula were also given during the University sessions 1920 and 1921. In 1924 and 1925 public lectures on educational problems were given at the University by Dr. Casimir and Sir John Adams. At *the University of Stellenbosch* extension lectures are given each year by members of the teaching staff, and in 1924 five series of these lectures were provided. In addition, ten lectures on various subjects were given by members of the staff at different places in the Union. The *University of the Witwatersrand* conducts afternoon and evening classes of a post-matriculation standard, mainly attended by teachers, in subjects in the faculties of arts and science; by attendance at such classes it is possible to qualify for the degree of Bachelor of Arts. Public lectures are given by members of the staff from time to time at the University, and are well attended by the public. The University is in touch with the Workers' Educational Association, and during 1922 and 1923 a discussion class was conducted with an attendance of about thirty, while in 1924 a course of lectures on "The New Psychology" showed a very large attendance. During the September vacations in 1921–24 "Refresher" courses for teachers were conducted at the University, at which short courses of lectures were given in English, history, geography, mathematics, psychology, music, animal biology, anthropology, etc. During the June vacations of 1924 and 1925, the University conducted courses in African native studies, in which lectures were given in native law and administration, philology, phonetics, witchcraft, history of native policy, music, anthropology, native economics, the social systems of the Bantu, and the psychology of primitive peoples. This aspect of the University's work shows promise of rapid and continuous development. In January, 1925, the University, through the co-operation of the Rand Mines, arranged a vacation course in mine hygiene for medical students, medical graduates, compound managers, underground officials, and any others associated with or interested in the welfare and safety of Europeans and natives in the Witwatersrand mining area. Evening classes in technical and allied subjects which were hitherto conducted by the University for the benefit of apprentices and others, have been placed under the control of the Witwatersrand Technical Institute. At the *Transvaal University College*, Pretoria, the extra-mural classes given out of office hours and in the business centre of the town provide facilities for civil servants, professional and business men to qualify for degrees in commerce, public administration, and law. In addition, a large number of public lectures, dealing mainly with problems of the day, are regularly given in Pretoria and elsewhere by members of the teaching staff and other authorities under the aegis of the College. At the *Huguenot University College*, Wellington, extension courses in chemistry and agriculture are given, on request, to farmers of the district. At *Rhodes University College*, Grahamstown, extension lectures are given from time to time by various members of the staff.

§ 2. State and State-aided Education other than Higher Education.

1. **General.**—Under the *South Africa Act*, for a period of five years after the establishment of the Union and thereafter subject to decree of Parliament, control of education other than higher education was granted to the four Provincial Administrations. This arrangement still obtains, and as the result each Province has continued to follow its own system and to shape its development according to its own separate policy. Thus four systems of state or state-aided education exist, which though akin in some respects are entirely dissimilar in others. Further there are in the Union numbers of schools independent of state aid or state control, statistics relating to which are given in § 4 of this chapter. The information contained in this section relates entirely to education under public control.

The whole question of "Provincial" education has been the subject of investigation by various Government commissions. The Provincial Finances Commission, which was appointed in September, 1922, and reported in April, 1923, inquired into the financial aspects of the question, and the Education Administration Commission, appointed in August, 1923, made a survey of the whole field of state and aided education in the Union (other than higher education). In its first report, dated October, 1923, the Commission

made recommendations defining the limits of compulsory education and assigning the burden of costs in relation to such limits. The final report, published in June, 1924, dealt more particularly with the questions of rural and technical education, and made proposals for the co-ordination of educational effort in the Union by the establishment of a central Board of Education directly under the control of the Union Government.

As from the 1st April, 1925, all Industrial and Trade Schools, formerly under the administration of the Provinces, were taken over by the Union Education Department and classified under Higher Education.

2. **Administrative System.**—Subject to final control by the Provincial Administration, the central direction of public education in each Province is exercised by the Provincial Education Department, the permanent head of which in the Cape of Good Hope is the Superintendent-General, in Natal the Superintendent, in the Transvaal and the Orange Free State in each case the Director. Each Province has an inspection staff adapted to its requirements (see previous issues of this *Year Book*).

In the *Cape of Good Hope* the majority of schools for European pupils are controlled by 123 school boards with statutory powers. Schools for non-European pupils are mostly controlled by denominational bodies. The general policy of the Cape Education Department aims at the encouragement of local efforts for the extension and improvement of primary and secondary education for all races. The various Acts and Ordinances dealing with education in this Province have been co-ordinated in the *Consolidated Education Ordinance*, 1921.

In *Natal* the Department has power to establish and maintain primary schools, and also to make grants-in-aid to private schools. It has direct management of certain secondary schools, and the power to make grants to other secondary schools which agree to maintain the same standard of education as in the Government schools. The Department may establish schools for native children, and, on request, it may undertake the inspection of private schools. There is no system of local administration, but advisory school committees exist in some districts.

In the *Transvaal*, primary education is compulsory, and both primary and secondary education are free, while books and school material are provided by the Provincial Administration. The establishment and maintenance of schools for European children form the bulk of the Education Department's work, but it also has power to establish schools for non-European pupils. Grants-in-aid are made to private farm schools and various other institutions which do not form part of the ordinary school system. The Province is divided into thirty-two school districts, for each of which there is an advisory body called a school board, consisting partly of elected and partly of nominated members.

In the *Orange Free State*, the Department has powers to establish and maintain various types of public schools and allied institutions, and also to make grants-in-aid to the latter, as well as to private schools which comply with certain conditions. The Province is divided into fifty-seven school districts, for each of which there is an advisory board, consisting of elected members, with certain powers of supervision.

Further particulars of the educational administrative systems of the various Provinces, both central and local, are given in the sixth and previous issues of this *Year Book*.

3. **Finance.**—The central expenditure on school education is met from grants made by Provincial Councils supplemented from certain other local sources of revenue. In the *Cape of Good Hope*, expenditure on teachers' salaries, hire of buildings, purchase of equipment, etc., is defrayed almost entirely from Provincial Revenue Funds, the payment of school fees up to and including Standard VI having been abolished as from the 1st July, 1920, in the case of all schools, European and non-European, except in certain high schools and in a few primary schools connected with high schools. In *Natal* the entire cost is paid out of the central fund, receipts from school fees being paid into the credit of that fund. Local contributions are not required by the Administration. Primary Education is entirely free in Government Schools. In the *Transvaal* school education is free, the whole cost being met from the Provincial revenue. In the *Orange Free State* the total expenditure is similarly met. No local contributions towards expenditure are required. Education up to and including the matriculation standard was made free in 1920; but certain schools approved of by the Provincial Administration are allowed to charge tuition fees, the amount of such fees being placed at the disposal of the respective school committees for expenditure at their discretion for the benefit of the school.

A feature of the financial provision made in the various Provinces for the encouragement of education is the bursary system (see page 185).

4. **Classification and Curriculum of Schools.**—(i) *Cape of Good Hope.*—European schools are classified as training colleges, training schools, high schools, secondary schools, primary schools, farm schools, special schools, and part-time schools.

There are 105 high schools and 84 secondary schools providing differentiated courses in secondary education. There are 1,802 primary schools in which instruction is given on the lines of the complete primary school course, consisting of two sub-standards and six standards. Farm schools, of which there are 371, provide instruction on the lines of

the primary course at centres where it is not possible to secure a regular attendance of at least ten pupils, the minimum requirement for primary schools.

The native section includes 1 secondary school, 1 primary school, 4 part-time schools, 9 industrial schools, 14 training schools, and 1,575 native schools. The coloured section includes 2 intermediate schools, 17 primary schools, 4 part-time schools, 4 training schools, and 424 coloured schools. The native and coloured schools are managed by the various religious denominations, and are aided by the Government.

(ii) *Natal.*—The Government schools are divided into primary schools, higher grade elementary, and secondary schools; the former covering a syllabus of six standards. No free scholars are admitted to the high schools except those who gain "freeplaces" under the bursary system, or the dependents of those who went on active service. No native, Indian, or coloured children are allowed in schools other than those specially provided for them. Farm schools may hardly be said to be schools in the ordinary sense, but merely groups of children under a tutor or governess. Separate syllabus arrangements exist for all classes of schools, and also for schools where Dutch is the mother tongue of the children.

(iii) *Transvaal.*—Primary schools cover a course of six standards. A seventh has been approved in certain cases. Secondary or high schools have in five cases complete and separate primary departments and in a few cases have preparatory classes corresponding to Standards IV and V, before the ordinary high school course which commences with Standard VI as the first of the five forms provided for in the curriculum. There are 45 high schools in the Province, 3 being for a commercial and 1 for a technical education and 1 for the preliminary training of teachers. Of these, 7 are for boys only, 5 for girls only, and 33 for both boys and girls. On the 28th November, 1924, there were 8,846 pupils in these schools, while 594 pupils were receiving the higher education in the secondary departments of primary schools. Marked progress is being made in the various subjects classified under the head of domestic science, and also in manual training, elementary science, and technical and trades education. Specially qualified instructors are provided for these subjects.

(iv) *Orange Free State.*—Primary schools provide for the whole primary school course from the sub-standards to standard VI inclusive. Intermediate schools provide for continuation work up to the school leaving certificate and including the National Commercial certificates of the Union Education Department. Secondary schools, in addition, provide for courses up to matriculation and equivalent examinations. Thus two types of school may be combined in one institution. The public school is regarded as complete when it covers the whole ground from the infant school to University matriculation.

5. **Religious Instruction.**—The practice in each Province in all public schools is for school to be opened with prayer and the reading of the Bible. Teaching of Bible history in school, subject to a conscience clause, may be and generally is provided; but no sectarian or doctrinal teaching is allowed, except in the Cape Province under certain conditions laid down in the *Religious Instruction in Schools Ordinance*, 1913, which governs the matter.

6. **Attendance.**—(i) *Cape of Good Hope.*—Education for European children between the ages of seven and sixteen years is compulsory throughout the Province unless the child is engaged in a regular occupation and has already passed the sixth standard. Provision is made for the transport or boarding of children when necessary. Primary Education up to and including Standard VI is free, except in certain high schools and a few primary schools connected with high schools.

(ii) *Natal.*—Education for European children between the ages of seven and fifteen years is compulsory. Fees are charged in primary schools only in respect of pupils who have passed Standard VI and are engaged in vocational work.

(iii) *Transvaal.*—Education in respect of white children between the ages of seven and fifteen years is compulsory. Education is free.

(iv) *Orange Free State.*—Education in respect of white children between the ages of seven and sixteen years is compulsory, unless a child is receiving adequate instruction elsewhere, or has passed the sixth standard and is in regular employment. If a pupil resides more than three miles from school and if the parent is unable to provide transport, the Department gives assistance, either for transport or for board.

7. **Qualifications and Grading of Teachers.**—(i) *Cape of Good Hope.*—The chief classes of certificates issued by the Department to student-teachers after training and examination are :—

(*a*) Primary Teachers' Lower Certificate [formerly called Third Class Teachers' Certificate (Senior)], after a two-year course of training, the admission standard being a pass in the Junior Certificate examination. There are also a Coloured Teachers' Primary Lower Certificate and a Native Teachers' Primary Lower Certificate. The courses of training extend over a period of three years, the standard of admission being a pass in Standard VI.

(*b*) Primary Teachers' Higher Certificate (formerly called Second Class Teachers' Certificate), after a two-year course of training, the admission standard being a pass in the Senior Certificate or Matriculation examination. There are also a

Coloured Teachers' Primary Higher Certificate and a Native Teachers' Primary Higher Certificate. The courses of training extend over a period of two years, the standard of admission being a pass in the Junior Certificate examination.

(*c*) Infant School Teachers' Certificate, after a training course of one year each, the admission requirement being the possession of the Primary Teachers' Lower Certificate.
(*d*) Teachers' Drawing Certificate, awarded to candidates who obtain first-grade Certificates in Freehand, Model, Geometrical, and Blackboard Drawing.
(*e*) Art Teachers' Certificate, awarded to candidates holding the last-mentioned certificate, who complete a further course of study within five years.
(*f*) Teachers' Woodwork and Cardboard Modelling Certificate.

Teachers in ordinary coloured or native mission schools are eligible for a Good Service Allowance after five years' reasonably meritorious and continuous teaching service, and pensions based on this allowance are provided for. Teachers in School Board schools are graded and paid according to the nature of the work on which they are employed, qualifications and experience being taken into account; Good Service Allowance is not being continued in the case of these teachers and certain other teachers, for whom a new pension scheme has been laid down. The pension contribution amounts to 4 per cent. on the annual salary.

(ii) *Natal.*—Two classes of certificates are given on examination. The Government, Training College at Pietermaritzburg supplies about fifty certificated teachers each year, 80 per cent. of whom are women. Admission to the Training College is gained either by means of an entrance examination or by means of the University Matriculation examination. Students in training have several avenues of qualification offered them. First, the purely internal Third Class Certificate, for which a two years' course is required. In conjunction with the Natal University College the Teachers' Lower Diploma (three years' course to which the Matriculation Certificate admits), the Higher Diploma (four years' course), and the M.Ed. degree (five years' course) may also be taken at this institution.

The Second Class Teachers' Certificate is at present an extra-mural course for practising Third Class teachers who desire a higher qualification, or for unqualified practising teachers who must have academic qualifications not less than the Intermediate Arts Examination of a university of standing, or (for women) the L.L.A. diploma of St. Andrew's University. A women's hostel has been established. Senior and junior certificates are given to Indian teachers, and there are three native teachers' certificates. A few teachers in Government schools are public servants and entitled to pensions. Others contribute to a superannuation fund.

(iii) *Transvaal.*—Teachers in schools directly maintained by the Government are public servants. They enter into a definite contract with the Government. A teacher's salary depends on the qualifications held. All teaching posts are graded in accordance with these qualifications, and the complete list of the posts, together with the qualifications required for each, are laid down in the conditions of service. The main lines of classification depend upon certification, training, and experience.

Teachers' Certificates of the Third and Second Class are issued by the Transvaal Education Department, which prescribes the conditions under which they may be issued. Courses for both classes of certificate are provided at the normal colleges, and teachers may also prepare for them privately. The First Class Certificate is issued by the Union Department of Education, which prescribes the conditions under which it may be issued. The university colleges provide courses, usually directed by a professor of education, for this certificate.

A Provisional Certificate of the Third Class, which is really a licence to teach and is not a guarantee of training or study for the profession of teaching, is issued to teachers who have not qualified for an unprovisional certificate. This is done to fulfil a requirement of the law.

(iv) *Orange Free State.*—Teachers in public schools are mainly servants of the State. The minimum requirement for recognition as a teacher in public schools is the successful completion of a secondary school course. The examinations and grading of teachers in the service of the Department are conducted by a Board of Examiners, of which body the Director of Education is *ex officio* Chairman. Professional Teachers' Certificates are of eight classes—Lower Primary Teachers' Certificate, Higher Primary Teachers' Certificate, Advanced Primary Teachers' Certificate, Commercial Teachers' Certificate, Domestic Science Teachers' Certificate, and Secondary Teachers' Certificates, Grades I, II, and III. The minimum requirements for the admission of candidates to these examinations are as follows:—Lower Primary Teachers' Certificate (women only): Matriculation or equivalent certificate and one year's course of training at the Normal College; Higher Primary Teachers' Certificate (men and women): First year's B.A. course in certain specified subjects and one year's training at the Normal College (for this certificate teachers may specialize in kindergarten and infant work); Advanced Primary Teachers' Certificate: Higher Primary

Teachers' Certificate or equivalent, second year's Degree course and five years' experience (if the Degree course was taken as an internal student the experience required is reduced to two years); Commercial Teachers' Certificate: First year's Bachelor of Commerce course in certain specified subjects and an approved course in shorthand, one year's professional training at an approved institution; Domestic Science Teachers' Certificate; Matriculation or equivalent certificate, and two years' training in domestic science subjects at an approved institution.

The Secondary Teachers' Certificate is issued without further examination as follows:—

Grade I.—To graduates in possession of the Provisional T.1 Certificate of the Union Education Department.

Grade II.—To graduates in possession of the Advanced Primary Certificate or T.2 Certificate under previous laws.

Grade III.—To graduates in possession of the Higher Primary Certificate or T.3 Certificate under previous laws.

8. **Salaries of Teachers.**—Particulars are given in the sixth issue of this *Year Book* as to the scales of salaries obtaining with regard to various classes and grades of teachers in each Province. No changes have been recorded in these scales, except that in the Orange Free State the minimum salaries in Classes III and IV were reduced by £20 or £30, and the salaries in Classes V to IX (uncertificated teachers) by amounts ranging from £50 to £24.

9. **Training Colleges.**—In the *Cape of Good Hope*, apart from the Universities, there are twelve European training colleges and schools in which there are over 1,100 students under training as teachers. In *Natal* there is one Government Training College which is situated at Pietermaritzburg, and provides (*a*) a two years' course to the Third Class Certificate of the Province after admission through the training College entrance or matriculation examination, (*b*) a Higher or Lower Diploma Course in Education, (*c*) the M.Ed. degree. The College contains in its own grounds classrooms, laboratories, an art school, music rooms, a domestic science building, and a women's hostel. The following table gives the list of training colleges and training schools for teachers in each Province of the Union:—

Cape of Good Hope:

European.

Cape Town Training College.
Cradock Training College.
Graaff-Reinet Training College.
Grahamstown Training College.
Kimberley Training College.
King William's Town Training School.
Oudtshoorn Training School.
Paarl Training College.
Stellenbosch Training School.
Steynsburg Training School.
Uitenhage Training School.
Wellington Training College.

Non-European.

In the native training schools over 1,500 students are under training as teachers, and in the coloured training schools over 300.

Bensonvale (Native).*
Blythswood (Native).†
Buntingville (Native).*
Cape Town, Zonnebloem (Coloured).‡
Clarkebury (Native).*
Emfundisweni (Native).*
Emgwali (Native).†
Engcobo, All Saints' (Native).‡
Healdtown (Native).*
Kimberley, Perseverance (Coloured).‡
Lovedale (Native).†
Mvenyane (Native).§
Salt River (Coloured).*
St. Matthew's (Native).‡
Shawbury, Girls' (Native).*
Tiger Kloof (London Missionary Society) (Native).
Uitenhage (Coloured).¶
Umtata (Native).‡

Natal:

Pietermaritzburg Training College.

Transvaal:

Normal College, Pretoria.
Normal College, Johannesburg.
Normal College, Heidelberg.
‖ Normal College and Preparatory Classes, Ermelo.
Normal College, Potchefstroom.

Orange Free State:

Normal College, Bloemfontein.

* Wesleyan. † United Free Church of Scotland. ‡ English Church. § Moravian. ¶ Independent.
‖ Since closed.

10. **Special and Part-time Schools.**—In the *Cape of Good Hope*, the European special schools already referred to include three art schools, three schools for deaf mutes, and one school for the blind, twelve industrial schools (including four single-teacher industrial departments attached to indigent boarding-houses) for boys and five (including one single-teacher industrial department attached to an indigent boarding-house) for girls. In the industrial schools trades are taught to the children of parents who are in poor circumstances. The trades taught to boys are wagon-making, carpentry, blacksmith's work, tailoring, shoemaking, printing, bookbinding, gardening, and agriculture, and motor mechanics. Girls receive instruction in cooking, housework, and laundry work. Part-time schools, of which there are thirteen for European pupils are mainly evening schools which provide instruction in the subjects of the primary and secondary school course to pupils exempt under the law from compulsory attendance at a day school and otherwise occupied during the day. They include technical classes at the large centres. In *Natal*, amongst special schools are the Technical Institute at Pietermaritzburg, and the Natal Technical College at Durban. The Pietermaritzburg Technical Institute provides day, afternoon, and evening classes in engineering, commerce, mathematics, science, machine design and drawing, dressmaking, and telegraphy. Evening continuation classes are also held. The Natal Technical College includes a Technical High School with a four years' course, a School of Art, and courses in mechanical and civil engineering, mathematics, physics, and electrical engineering, chemistry, and natural science, commerce, humanities, domestic science, and sociology; and provision is made for evening classes and day classes for apprentices and engineering students.* The School of Physical Culture at Pietermaritzburg comprises a general course in physical development for children and adults. The Farm Training School at Weston was opened in 1914, and there are in residence over 100 boys between the ages of thirteen and nineteen years. Provision is made for a three years' course in agriculture and wood and iron work. These institutions are now under the control of the Union Education Department. In the *Transvaal*, there is a technical high school at Johannesburg, and there are three technical or trade schools, maintained by Government. There are also two industrial schools aided by Government. In addition, there were at the end of 1924 forty-three continuation or evening class centres in operation with an enrolment of 4,435 students. In the *Orange Free State* there are several Trade and Industrial Schools, including schools of agriculture and housewifery, and continuation classes are also conducted in different centres of the Province.

11. **Vocational Education.**—Under the supervision of the Union Department of Education a series of national technical and commercial examinations is held at regular intervals with the object of stimulating vocational education in combination with or in continuation of the ordinary school curriculum. The Department is assisted by an advisory committee representative of the Provincial Education Departments, the Universities, the Chambers of Commerce, and various technical institutions, and is able, through the advisory committee and by setting a proper standard for the departmental examinations, to ensure that the training obtained by students and the certificates issued on the examinations are of definite practical value. The examinations, which are held in over 179 centres, and for which 6,023 candidates entered in 1924, are of five general types: (i) Teachers' Certificates and Diplomas (embracing courses in domestic science, commerce, technology and art); (ii) National and Advanced Technical Certificates; (iii) National Housewife Certificates; (iv) National Technical Day-School Certificates (in which technical courses are associated with subjects of a more academic character), and (v) General Commercial Certificates.

The Union Department of Education is responsible for the maintenance of all industrial and trades schools in the Union, those formerly under the control of the Provincial Administrations having been taken over as from the 1st April, 1925. In the industrial schools, administered under the Children's Protection Act (see Chapter VIII), provision is made for training in agriculture and various trades. These latter schools, nine in number, are established at George, Paarl, and King William's Town in the Cape Province, Heidelberg and Standerton in the Transvaal, and Dewetsdorp and Tempe in the Orange Free State.

§ 3. Statistics of State and State-Aided Education other than Higher Education.

1. **General.**—The following tables give in respect of the Union, and of each Province separately, summarized figures indicating the development of primary and secondary education and education other than higher education from the earliest date available in each case to 1923.† The figures given as to expenditure relate only to expenditure from

* Under the *Higher Education Act* of 1923, the Natal Technical College was declared to be a place of higher education, and it became eligible for the receipt of grants-in-aid from the Union Government. Similar provision was made for the Cape Technical College, which has taken over the work hitherto done by the Salt River Technical Institute. These arrangements were designed to promote technical education in the two Provinces.

† Fuller historical tables will be found in previous issues of this *Year Book* (Nos. 2 to 6).

Government funds and do not represent the total cost of education, part of which in the Cape, Natal, and Orange Free State Provinces, and during some period to a limited extent in the Transvaal Province, has been defrayed from local sources. The figures showing expenditure per scholar are based upon the total of all scholars, European and non-European. Seeing that the cost of European and non-European education differs very considerably, and the proportion of European to non-European children varies in the case of each Province, comparison between the Provinces cannot be made with any degree of accuracy. For the purposes of comparison with the statistics which follow, it has been estimated that in the last quarter of the undermentioned years the numbers of European children in the Union over the age of seven and under the age of sixteen years (i.e. roughly the school-going period) were as shown :—

1921	334,426
1922	338,500
1923	338,575
1924	339,322
1925	339,777

(i) UNION—STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION, 1895 TO 1924.

Year.	Number of Schools.			Number of Scholars.			Number of Teachers. †	Normal State Expenditure.
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		
								£
1895	2,276	1,042	3,318	66,496	71,057	137,553	4,810	246,093
1900	1,705	1,358	3,063	68,982	99,881	168,863	4,594	329,471
1905	2,597	1,812	4,409	123,894	118,865	242,759	8,204	—
1910	3,873	1,999	5,872	163,257	136,000	299,257	10,912	1,597,062
1915	4,728	2,501	7,229	229,667	182,841	412,508	14,817	2,440,407
1916	4,878	2,595	7,473	247,294	192,055	439,349	15,363	2,600,644
1917	4,945	2,935	7,780	259,076	201,419	460,495	17,971	3,169,889
1918	4,846*	2,878	7,724	283,149	220,104	503,253	18,301	3,631,408
1919	4,752*	3,046	7,798	292,628	221,783	514,411	18,689	4,530,634
1920	4,746*	3,129	7,875	303,255	238,137	541,392	19,759	5,940,037
1921	5,038	3,285	8,323	322,635	245,946	568,581	20,632	6,612,834
1922	4,750*	3,288	8,038	331,081	251,872	582,953	20,829	6,468,855
1923	4,651*	3,312	7,963	332,066	263,738	595,804	21,000	6,341,175
1924	4,631*	3,259	7,890	330,371	262,763	593,134	21,005	6,820,345

* Private Farm Schools in Natal excluded. † Primary and Beyond Primary Schools only.

(ii) CAPE OF GOOD HOPE—STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION, 1860 TO 1924.

Year.	Number of Schools.			Number of Scholars.			Percentage of Attendance (European only).	Number of Teachers.‡			Normal State Expenditure.	Expenditure per capita. (All Scholars).
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		Certificated.	Uncertificated.	Total.		
											£	£ s. d.
1860	—	—	225	—	—	18,757	—	—	—	—	*14,000	0 14 11
1870	—	—	438	—	—	40,412	—	—	—	—	23,045	0 11 5
1880	—	—	943	—	—	72,281	—	—	—	—	79,648	1 2 0
1890	—	—	1,609	—	—	104,293	—	—	—	—	129,351	1 4 10
1895	1,359	881	2,240	45,606	62,348	107,954	81·5	1,381	2,753	4,134	181,371	1 13 7
1900	1,463	1,142	2,605	58,471	85,869	144,340	83·4	2,170	2,424	4,594	272,207	1 17 9
1905	1,666	1,429	3,095	67,798	95,321	163,119	89·1	3,104	2,869	5,973	447,796	2 14 11
1910	2,353	1,585	3,938	81,775	103,936	185,711	88·8	4,538	2,722	7,260	440,199	2 7 5
1915	2,793	1,859	4,652	104,974	136,079	241,053	91·6	6,019	3,383	9,402	919,485	3 16 3
1916	2,810	1,901	4,711	110,258	139,561	249,819	91·1	—	—	9,365†	919,060	3 13 7
1917	2,821	1,927	4,748	112,129	134,485	246,614	91·4	6,667	3,593	10,260	1,154,360	4 14 5
1918	2,786	2,008	4,794	121,910	149,985	271,895	92·1	6,717	2,910	9,627	1,408,239	5 3 7
1919	2,702	2,036	4,738	121,475	146,128	267,603	91·9	7,242	2,697	9,939	1,679,888	6 5 6
1920	2,621	2,019	4,640	128,061	154,422	282,483	90·8	7,649	2,355	10,004	2,011,667	7 2 5
1921	2,662	2,025	4,687	135,708	157,887	293,595	91·2	8,095	2,121	10,216	2,450,629	8 6 11
1922	2,524	2,028	4,552	137,581	160,085	297,666	91·7	8,384	1,627	10,011	2,514,412	8 8 11
1923	2,387	2,032	4,419	137,723	167,861	305,584	91·7	8,689	1,263	9,952	2,448,969	8 0 3
1924	2,362	2,046	4,408	135,779	164,902	300,681	90·8	8,994	1,051	10,045	2,761,935	9 3 8

* Approximate. † Percentage certificated, 65·41. ‡ Primary and Beyond Primary Schools only.

(iii) NATAL—STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION, 1885 TO 1924.

Year.	Number of Schools.			Number of Scholars.			Percentage of Attendance (European only).	Number of Teachers.‖			Normal State Expenditure.	Expenditure per capita (All Scholars).
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		Certificated.	Uncertificated.	Total.		
											£	£ s. d.
1885	51	89	140	3,922	5,263	9,185	—	—	—	—	18,723	2 0 9
1890	90	88	178	5,793	5,448	11,241	—	—	—	—	18,777 (to June 30 only)	1 13 5
1895	287	161	448	7,608	9,709	17,317	—	—	—	—	40,681	2 7 0
1900	242	216	458	10,511	14,012	24,523	—	—	—	—	57,264	2 6 8
*1904-05	279	205	484	11,989	13,618	25,607	82·4	—	—	393‡	107,366	4 3 10
*1909-10	342	236	578	13,999	17,973	31,972	84·0	355	24	382‡	103,748	3 4 11
1915	351	360	711	19,892	28,324	48,216	86·0	—	—	603‡	205,512	4 5 3
1916	353	381	734	21,054	30,008	51,062	86·0	—	—	689‡	222,954	4 7 4
1917	326	393	719	§20,711	28,812	49,523	90·1	1,174	636	1,810	265,168	5 7 1
1918	188¶	398	586	22,541	30,000	52,541	87·0	1,101	592	1,693	435,375	6 9 7
1919	170¶	457	627	25,175	30,144	55,319	88·0	1,046	567	1,613	520,084	9 8 0
1920	186¶	541	727	23,140	34,217	57,357	90·0	1,273	832	2,105	566,319	9 17 1
1921	366	584	950	24,257	36,896	61,153	88·4	1,455	812	2,267	562,572	8 5 8
1922	194¶	567	761	24,389	37,877	62,266	98·3	1,713	849	2,562	575,245	9 3 2
1923	200¶	576	776	24,917	39,163	64,080	92·0	1,630	698	2,328	551,497	8 12 1
1924	202¶	570	772	25,266	39,801	65,067	89·0	1,729	657	2,386	637,657	9 12 4

* July to June.
‡ In State schools only and including pupil and visiting teachers.
§ Excluding farm school pupils.
‖ Primary and Beyond Primary Schools only.
¶ Excluding farm schools.

(iv) TRANSVAAL—STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION, 1876 TO 1924.

Year.	Number of Schools.			Number of Scholars.			Percentage of Attendance (European only).	Number of Teachers.*			Normal State Expenditure.	Expenditure per capita (All Scholars).
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		Certificated.	Uncertificated.	Total.		
											£	£ s. d.
1876	13	—	13	150	—	150	—	—	—	—	1,275	8 10 0
1890	296	—	296	6,990	—	6,990	—	—	—	—	35,547	5 1 8
1895	422	—	422	7,679	—	7,679	89·0	180	276	456	63,779	8 6 1
1902	178	—	178	16,926	—	16,926	—	—	—	—	—	—
1905	394	178	572	28,530	9,926	38,456	84·1	615	482	1,323‡	156,394†	4 1 4
1910	727	178	905	48,352	14,091	62,443	86·0	1,358	710	2,450‡	887,547§	14 4 3
1915	786	282	1,068	73,955	18,438	92,393	89·6	1,995	699	3,242‡	941,919	10 3 11
1916	898	313	1,211	80,376	22,486	102,862	89·4	2,170	852	3,646‡	1,078,448	10 9 8
1917	930	350	1,280	89,328	24,569	113,897	90·5	2,509	889	4,100‡	1,281,789	11 5 2
1918	997	346	1,343	99,164	26,256	125,420	90·0	2,968	1,397	4,365	1,325,368	10 11 2
1919	1,019	417	1,436	104,715	30,583	135,298	90·4	3,187	1,781	4,968	1,655,287	12 5 0
1920	1,071	437	1,508	108,735	33,065	141,800	90·1	3,628	1,862	5,490	2,561,348	18 1 3
1921	1,133	415	1,548	117,200	33,541	150,741	91·4	4,048	1,872	5,920	2,677,316	17 15 3
1922	1,153	424	1,577	121,997	36,225	158,222	92·3	4,309	1,727	6,036	2,566,905	16 3 2
1923	1,182	426	1,608	122,783	40,699	163,482	92·4	4,561	1,547	6,108	2,507,504	15 6 9
1924	1,202	392	1,594	123,149	42,106	165,255	91·9	4,878	1,229	6,107	2,576,148	15 11 9

* Primary and Beyond Primary Schools only.
† Exclusive of £2,067 grant to Transvaal Technical Institute.
‡ Including native teachers.
§ Exclusive of £25,000 grant to Transvaal University College.

(v) ORANGE FREE STATE—STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION, 1895 TO 1924.

Year.	Number of Schools.			Number of Scholars.			Percentage of Attendance (European only).	Number of Teachers.†			Normal State Expenditure. *	Expenditure per capita (European Scholars only).
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		Certificated.	Uncertificated.	Total.		
											£	£ s. d.
1895	208	—	208	5,603	—	5,603	—	—	—	220	45,719	8 3 2
1903	77	—	77	9,031	—	9,031	—	—	—	240	—	—
1905	258	—	258	15,577	—	15,577	—	—	—	515	104,343	6 14 0
1910	451	—	451	19,131	—	19,131	—	—	—	820	165,568	8 13 1
											(11 months)	
1915	798	—	798	30,846	—	30,846	—	—	—	1,570	373,491	12 2 2
1916	817	—	817	35,606	—	35,606	89·3	—	—	1,663	380,182	10 13 7
1917	868	265	1,133	36,908	13,553	50,461	87·3	1,053	748	1,801	468,572	12 13 10
1918	875	126	1,001	39,534	13,863	53,397	88·3	1,220	782	2,002	518,521	13 2 2
1919	861	136	997	41,263	14,928	56,191	88·4	1,333	836	2,169	675,375	16 7 4
1920	868	132	1,000	43,319	16,433	59,752	87·0	1,323	837	2,160	800,703	18 9 8
1921	877	261	1,138	45,470	17,622	63,092	89·7	1,443	786	2,229	922,317	20 5 8
1922	879	269	1,148	47,114	17,685	64,799	90·9	1,615	605	2,220	822,293	17 9 1
1923	882	278	1,160	46,643	16,015	62,658	89·0	1,783	829	2,612	833,205	17 10 9
1924	865	251	1,116	46,177	15,954	62,131	92·3	1,827	640	2,467	844,575	17 19 6

* Excluding expenditure on construction of new school buildings and on minor works and maintenance of such buildings. † Primary and Beyond Primary Schools only.

2. Statistics as to Education of European Scholars.—The following tables give (A) in the form of a general summary, and (B.) in detail, statistics as to State and State-aided schools for European scholars in the Union, numbers of scholars, particulars as to enrolment and attendance, sex and age, and numbers in the various standards. Further tables give particulars as to teachers, training institutions for teachers, technical and special schools.

(A) GENERAL SUMMARY.—STATE AND STATE-AIDED SCHOOLS FOR EUROPEAN SCHOLARS.

i) NUMBER OF SCHOOLS AND EXPENDITURE ON EDUCATION OTHER THAN HIGHER EDUCATION OF EUROPEAN SCHOLARS IN THE UNION, 1916 TO 1924.

Year.	Number of Schools.			Training Colleges and Schools.	Special Schools.	Cost of Administration and Inspection.	Salaries of Teachers.	Total State Expenditure. *
	Primary.	Beyond Primary.	Total.					
						£	£	£
1916...	4,807		4,807	17	54	108,440	—	2,724,871
1917...	4,516	286	4,802	19	48	169,917	1,747,373	2,865,622
1918...	4,573	273	4,846	19	54	177,444	1,994,491	3,313,713
1919...	4,385	291	4,676	19	57	209,238	2,403,175	4,166,733
1920...	4,399	275	4,674	18	54	265,138	3,344,456	5,401,837
1921...	4,658	293	4,951	24	63	305,028	3,623,543	6,057,350
1922...	4,360	309	4,669	20	61	167,225	4,186,468	6,035,548
1923...	4,542	319	4,861	20	60	161,445	4,191,211	5,906,753
1924...	4,542	321	4,863	19	59	158,002	4,341,779	6,236,530

* Excluding capital expenditure.

(ii) NUMBER OF SCHOOLS AND EXPENDITURE ON EDUCATION OTHER THAN HIGHER EDUCATION OF EUROPEAN SCHOLARS IN EACH PROVINCE, 1923.

Province.	Number of Schools.			Training Colleges and Schools.§	Special Schools.	Expenditure.
	Primary.	Beyond Primary.	Total.			
						£
Cape of Good Hope	2,197*	190	2,387	13	43‖	2,108,634‡
Natal.....	413†	15	428	1	5	455,288
Transvaal.....	1,128	45	1,173	5	4	2,524,739
Orange Free State.	804	69	873	1	8	818,092
UNION.....	4,542	319	4,861	20	60	5,906,753

* Including 355 Farm Schools.
† Including 234 Farm Schools.
‡ Including expenditure defrayed from fees, local rates, and contributions (£122,100).
§ Excluding Training Departments attached to Secondary Schools.
‖ Including 14 Evening Schools.

(iii) NUMBER OF EUROPEAN SCHOLARS AND TEACHERS IN PRIMARY AND BEYOND PRIMARY SCHOOLS, TECHNICAL AND SPECIAL SCHOOLS AND TRAINING INSTITUTIONS IN THE UNION, FOURTH QUARTER, 1916 TO 1924.

YEAR.	NUMBER OF SCHOLARS.			AVERAGE ATTENDANCE FOR YEAR.*	PERCENTAGE OF ATTENDANCE TO AVERAGE ENROLMENT.*	NUMBER OF TEACHERS.		
	Boys.	Girls.	Total.			Males.	Females.	Total.
1916...	—	—	251,360	—	—	—	—	—
1917...	133,571	125,505	259,076	233,878	90·4	4,041	7,515	11,556
1918...	146,643	136,506	283,149	246,343	89·7	3,085	6,868	9,953
1919...	151,637	140,991	292,628	252,432	90·2	4,972	9,124	14,096
1920...	156,487	146,768	303,255	266,911	90·0	—	—	14,316
1921...	167,747	154,888	322,635	282,229	90·9	5,319	9,370	14,689
1922...	172,333	158,748	331,081	295,765	91·9	5,468	9,179	14,647
1923...	172,756	159,310	332,066	294,614	91·8	5,524	9,030	14,554
1924...	172,159	158,212	330,371	293,084	91·5	5,588	8,875	14,463

* Primary and Beyond Primary Schools only.

(iv) NUMBER OF EUROPEAN SCHOLARS AND TEACHERS IN PRIMARY AND BEYOND PRIMARY SCHOOLS, TECHNICAL AND SPECIAL SCHOOLS, AND TRAINING INSTITUTIONS IN EACH PROVINCE, FOURTH QUARTER, 1923.

Province.	Number of Scholars.			Number of Teachers.		
	Boys.	Girls.	Total.	Males.	Females.	Total.
Cape of Good Hope	71,142	66,581	137,723	1,711	4,371	6,082
Natal	12,940	11,977	24,917	302	866	1,168
Transvaal	64,286	58,497	122,783	2,475	2,606	5,081
Orange Free State	24,388	22,255	46,643	1,036	1,187	2,223
UNION	172,756	159,310	332,066	5,524	9,030	14,554

(B) DETAILED STATISTICS.—STATE AND STATE-AIDED SCHOOLS FOR EUROPEAN SCHOLARS.

(i) NUMBER AND CLASSIFICATION OF PRIMARY AND BEYOND PRIMARY SCHOOLS FOR EUROPEAN SCHOLARS IN EACH PROVINCE, LAST QUARTER, 1923.

Province and Classification of School.	Maintained by State.	Aided by State.	Total.	Schools for Boys only.	Schools for Girls only.	Mixed Schools.
Cape of Good Hope—						
Primary	2,161	36	2,197	12	10	2,175
Beyond Primary	188	2	190	24	25	141
TOTAL	2,349	38	2,387	36	35	2,316
Natal*—						
Primary	153	26	179	11	6	162
Beyond Primary	11	4	15	3	5	7
TOTAL	164	30	194	14	11	169
Transvaal—						
Primary	1,096	32	1,128	—	—	1,128
Beyond Primary	45	—	45	6	5	34
TOTAL	1,141	32	1,173	6	5	1,162
Orange Free State—						
Primary	718	86	804	—	1	803
Beyond Primary	66	3	69	2	3	64
TOTAL	784	89	873	2	4	867
UNION—						
Primary	4,128	180	4,308	23	17	4,268
Beyond Primary	310	9	319	35	38	246
TOTAL	4,438	189	4,627	58	55	4,514

* Exclusive of 234 Farm Schools.

(ii) ENROLMENT AND ATTENDANCE OF EUROPEAN SCHOLARS IN PRIMARY AND BEYOND PRIMARY SCHOOLS, LAST QUARTER, 1923.

Province and Classification of School.	Enrolment in Last Quarter.			Average Enrolment for Year.	Average Attendance for Year.	Percentage of Average Attendance to Average Enrolment.
	Boys.	Girls.	Total.			
Cape of Good Hope—						
Primary	40,547	37,756	78,303	77,151	70,511	91·39
Beyond Primary	29,186	27,241	56,427	56,304	52,658	93·52
TOTAL	69,733	64,997	134,730	133,455	123,169	92·29
Natal—						
Primary	11,159	10,122	21,281	20,968	18,937	90·31
Beyond Primary	1,781	1,855	3,636	3,761	3,507	93·25
TOTAL	12,940	11,977	24,917	24,729	22,444	90·76
Transvaal—						
Primary	57,427	53,112	110,539	110,313	101,822	92·30
Beyond Primary	5,672	4,388	10,060	10,078	9,524	94·50
TOTAL	63,099	57,500	120,599	120,391	111,346	92·49
Orange Free State—						
Primary	21,230	19,591	40,821	42,373*	37,655*	88·87*
Beyond Primary	3,158	2,664	5,822			
TOTAL	24,388	22,255	46,643	42,373	37,655	88·87
UNION—						
Primary	130,363	120,581	250,944	250,805	228,925	91·28
Beyond Primary	39,797	36,148	75,945	70,143	65,689	93·65
TOTAL	170,160	156,729	326,889	320,948	294,614	91·79

* Separate figures not available.

(iii) AGE AND SEX OF EUROPEAN SCHOLARS IN PRIMARY AND BEYOND PRIMARY SCHOOLS IN EACH PROVINCE, LAST QUARTER, 1923.

Age in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
Under 7	3,022	2,890	1,251	1,242	919	899	803	778	5,995	5,809	11,804
7	5,339	5,157	1,109	1,052	5,335	5,159	1,748	1,660	13,531	13,028	26,559
8	6,498	6,174	1,218	1,160	6,475	5,964	2,104	2,030	16,295	15,328	31,623
9	7,148	6,859	1,334	1,227	6,710	6,280	2,384	2,201	17,576	16,567	34,143
10	7,121	6,955	1,330	1,232	6,630	6,481	2,450	2,367	17,531	17,035	34,566
11	6,919	7,039	1,284	1,199	6,441	6,227	2,423	2,288	17,067	16,753	33,820
12	7,127	6,703	1,296	1,223	6,644	6,169	2,412	2,269	17,479	16,364	33,843
13	6,924	6,481	1,269	1,139	6,327	6,092	2,416	2,210	16,936	15,922	32,858
14	6,133	5,890	1,175	1,029	5,807	5,275	2,245	2,167	15,360	14,361	29,721
15	5,405	4,886	803	721	4,818	4,261	2,092	1,839	13,118	11,707	24,825
16 and over	8,097	5,963	871	753	6,993	4,693	3,311	2,446	19,272	13,855	33,127
TOTAL	69,733	64,997	12,940	11,977	63,099	57,500	24,388	22,255	170,160	156,729	326,889

(iv) PERCENTAGE OF EUROPEAN SCHOLARS OF EACH SEX AT EACH YEAR OF AGE IN PRIMARY AND BEYOND PRIMARY SCHOOLS IN EACH PROVINCE, LAST QUARTER, 1923.

Age in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
	%	%	%	%	%	%	%	%	%	%	%
Under 7..	4·3	4·4	9·7	10·4	1·5	1·6	3·3	3·5	3·5	3·7	3·6
7.....	7·7	7·9	8·6	8·8	8·5	8·9	7·2	7·5	8·0	8·3	8·1
8.....	9·3	9·5	9·4	9·7	10·3	10·4	8·6	9·1	9·6	9·8	9·7
9.....	10·3	10·6	10·3	10·3	10·6	10·9	9·8	9·9	10·3	10·6	10·4
10.....	10·2	10·7	10·3	10·3	10·5	11·2	10·0	10·6	10·3	11·0	10·6
11.....	9·9	10·8	9·9	10·0	10·2	10·8	9·9	10·3	10·0	10·6	10·3
12.....	10·2	10·3	10·0	10·2	10·5	10·7	9·9	10·2	10·3	10·4	10·4
13.....	9·9	10·0	9·8	9·5	10·0	10·6	9·9	9·9	9·9	10·1	10·1
14.....	8·8	9·1	9·1	8·6	9·2	9·1	9·2	9·7	9·0	9·2	9·1
15.....	7·8	7·5	6·2	6·0	7·6	7·7	8·6	8·3	7·8	7·5	7·6
16 and over	11·6	9·2	6·7	6·2	11·1	8·1	13·6	11·0	11·3	8·8	10·1
TOTAL....	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

(v) STANDARDS OF EUROPEAN SCHOLARS ENROLLED IN PRIMARY AND BEYOND PRIMARY SCHOOLS IN EACH PROVINCE, LAST QUARTER, 1923.

Standards.	Cape of Good Hope.*		Natal.		Transvaal.		Orange Free State.		Union.	
	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.
Below Standard.....	27,532	20·4	6,126	24·5	24,629	20·4	9,156	19·6	67,443	20·6
Standard I.	15,445	11·5	2,761	11·0	16,537	13·7	5,198	11·2	39,941	12·2
„ II.	16,638	12·4	2,763	11·0	16,451	13·6	5,796	12·4	41,648	12·7
„ III.	16,893	12·5	2,776	11·1	16,170	13·4	5,833	12·5	41,672	12·8
„ IV.	15,988	11·9	2,796	11·2	14,685	12·2	5,607	12·0	39,076	12·0
„ V.	14,354	10·7	2,716	10·9	11,832	9·8	4,870	10·4	33,772	10·3
„ VI.	12,293	9·1	2,392	9·5	10,235	8·5	4,359	9·4	29,279	9·0
„ VII.	6,627	4·9	1,121	5·0	4,182	3·5	2,448	5·3	14,378	4·4
Above Standard VII..	8,929	6·6	1,466	5·8	5,878	4·9	3,376	7·2	19,649	6·0
Unclassified.	31	0·0	—	—	—	—	—	—	31	0·0
TOTAL....	134,730	100·0	24,917	100·0	120,599	100·0	46,643	100·0	326,889	100·0

* Including Farm Schools.

(vi) AGES AND STANDARDS OF EUROPEAN SCHOLARS ENROLLED IN PRIMARY AND BEYOND PRIMARY SCHOOLS IN THE UNION, LAST QUARTER, 1923.

Age in Years.	Below Standard.	Standard I.	Standard II.	Standard III.	Standard IV.	Standard V.	Standard VI.	Standard VII.	Above Standard VII.	Unclassified.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Under 7	11,685	117	2	—	—	—	—	—	—	—	11,804
7.....	23,745	2,657	153	4	—	—	—	—	—	—	26,559
8.....	18,269	10,435	2,719	196	4	—	—	—	—	—	31,623
9.....	8,685	12,697	9,962	2,556	236	5	—	—	—	2	34,143
10.....	3,194	7,912	12,232	8,678	2,313	230	6	—	—	1	34,566
11.....	1,103	3,544	8,526	11,375	7,246	1,838	180	4	—	4	33,820
12.....	447	1,548	4,475	9,078	10,399	6,209	1,595	85	5	2	33,843
13.....	168	641	2,176	5,491	8,921	9,229	5,287	884	57	4	32,858
14.....	87	246	923	2,674	5,824	8,124	8,185	3,018	638	2	29,721
15.....	44	112	366	1,248	2,980	5,477	7,800	4,211	2,586	1	24,825
16 and over..	16	32	114	372	1,153	2,660	6,226	6,176	16,363	15	33,127
TOTAL..	67,443	39,941	41,648	41,672	39,076	33,772	29,279	14,378	19,649	31	326,889

(vii) NUMBER OF SCHOOLS (EUROPEAN SCHOLARS) WITH BOARDING ESTABLISHMENTS MAINTAINED OR RECOGNIZED, AND AVERAGE NUMBER OF BOARDERS, IN EACH PROVINCE, 1923.

Schools and Boarders.	Cape of Good Hope.*	Natal.	Transvaal.	Orange Free State.	Union.
Number of Schools.....	212	37	85	46	380
Average Number of Boarders...	10,079	2,104	4,586	2,266	19.035

* There are, in addition, 170 Indigent Boarding-Houses with 6,779 Boarders.

(viii) NUMBER OF CERTIFICATED AND UNCERTIFICATED TEACHERS IN PRIMARY AND BEYOND PRIMARY SCHOOLS FOR EUROPEAN SCHOLARS IN EACH PROVINCE, LAST QUARTER, 1923.

PROVINCE AND CLASSIFICATION.	MALE.			FEMALE.			ALL TEACHERS.		
	Certificated.	Uncertificated.	Total.	Certificated.	Uncertificated.	Total.	Certificated.	Uncertificated.	Total.
Cape of Good Hope*—									
Graduates.....	345	77	422	192	27	219	537	104	641
Non-Graduates....	994	117	1,111	3,871	174	4,045	4,865	291	5,156
Natal—									
Graduates.....	51	17	68	61	31	92	112	48	160
Non-Graduates....	166	68	234	555	219	774	721	287	1,008
Transvaal—									
Graduates.....	304	99	403	133	33	166	437	132	569
Non-Graduates....	1,563	509	2,072	1,997	443	2,440	3,560	952	4,512
Orange Free State—									
Graduates.....	170	48	218	44	16	60	214	64	278
Non-Graduates....	548	270	818	902	225	1,127	1,450	495	1,945
UNION—									
Graduates.....	870	241	1,111	430	107	537	1,300	348	1,648
Non-Graduates....	3,271	964	4,235	7,325	1,061	8,386	10,596	2,025	12,621
TOTAL.....	4,141	1,205	5,346	7,755	1,168	8,923	11,896	2,373	14,269

* Including Farm Schools.

(ix) TRAINING INSTITUTIONS FOR TEACHERS (EUROPEAN), LAST QUARTER, 1923.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
A. Training Colleges..... (Full to Primary Higher)...	4	1	2	1	8
B. Training Schools..... (Full to Primary Lower)	9	—	3	—	12
C. Training Departments attached to Secondary Schools—					
1. Full Course.....	—	—	—	—	—
2. Partial Course.....	—	—	2	—	2
TOTAL.....	13	1	7	1	22

(x) STUDENTS (EUROPEAN) AND TEACHERS IN TRAINING INSTITUTIONS, LAST QUARTER, 1923.

PROVINCE.	STUDENTS.			TEACHERS.		
	Male.	Female.	Total.	Male.	Female.	Total.
Cape of Good Hope*	262	1,072	1,334	24	60	84
Natal	33	116	149	5	7	12
Transvaal	436	440	876	32	26	58
Orange Free State	37	97	134†	9	3	12‡

* Excluding training departments connected with Universities and University Colleges.
† In addition, 26 part-time students attended various courses during the fourth quarter.
‡ There is, in addition, a visiting teaching staff of two males and two females.

(xi) TECHNICAL AND SPECIAL SCHOOLS, CAPE OF GOOD HOPE, NATAL, AND TRANSVAAL PROVINCES, 1923.

(*a*) CAPE OF GOOD HOPE.

Technical Schools.—Instruction in courses of Technical work is given at three centres, viz.: East London Technical Evening School, 122 students; Kimberley School of Mines 159 students; and Uitenhage Technical Evening School, 69 students.

Art Schools.—There were 316 students in attendance at the Cape Town, Grahamstown, and Port Elizabeth Art Schools.

The College of Music, Cape Town, had an enrolment of 536 students.

Domestic Science.—Training in the full range of domestic science work is given at the Cape Town Domestic Science Training Centre (41 Roeland Street), where, in addition to training Domestic Science teachers, instruction is given to 28 students in one or more subjects.

Vocational Schools.—There were 12 Industrial or Vocational Schools for European boys, viz., at Adelaide, Cape Town (Salesian Institute), Goedemoed, Karreedouw, Knysna, Lady Grey, Montagu, Oudtshoorn, Ugie, Uitenhage, Willowmore, and Worcester, with staff of 40 teachers giving instruction to 534 pupils in carpentry work, blacksmith work, bookbinding, gardening, printing, shoemaking, tailoring, wagon-making, and motor mechanics.

There were 5 Industrial or Vocational schools for European girls, viz., Adelaide, Riebeek West, Tulbagh, Ugie, and Wellington with staff of 14 teachers giving instruction to 167 girls in cookery, housework, laundrywork, etc.

Schools for Defectives.—There were 4 institutions for the deaf, dumb, and blind, viz., Cape Town Deaf and Dumb School, King William's Town Convent School for Deaf, Worcester Blind, and Worcester Deaf and Dumb School, employing 21 teachers, and attended by 122 European boys, 100 European girls, 7 non-European boys, and 5 non-European girls.

NAME OF INSTITUTION.	NUMBER OF STUDENTS.			NUMBER OF TEACHERS.		
	Male.	Female.	Total.	Male.	Female.	Total.
(*b*) NATAL.						
*Natal Technical College, Durban	965	538	1,503	33	22	55
Pietermaritzburg Technical Institute	207	174	381	13	3	16
Pietermaritzburg Art School	5	47	52	1	1	2
Pietermaritzburg Physical Culture School	185	208	393	1	—	1
Weston Trades School	103	—	103	4	—	4
(*c*) TRANSVAAL.						
†East Rand Trades School	88	—	88	12	—	12
†Johannesburg Trades School	290	—	290	26	—	26
†Pretoria Trades School	137	—	137	15	—	15
Johannesburg School of Domestic Science	—	316	316	1	9	10
Potchefstroom Industrial School for Boys	126	—	126	5	—	5
Potchefstroom Industrial School for Girls	—	104	104	—	3	3

* Figures for 1924.
† The theory as well as the practice of the various trades is taught.

(*d*) ORANGE FREE STATE.

Industrial Schools.—There are 8 such schools, viz., Jacobsdal, Ficksburg, Bloemfontein, Tweespruit, Kroonstad, Heilbron, Bethlehem Housecraft, and Ladybrand Agriculture, teaching carpentry, tailoring, wagon-making, smithery, bootmaking, saddlery, painting, housewifery, farming, etc. The teaching staff consists of 32 males and 8 females, and the scholars number 272 males and 69 females.

3. **Expenditure on Education of European Scholars.**—Particulars are given in the following tables as to expenditure in the various Provinces on the education (other than the higher education) of European scholars, and as to the cost per scholar and per head of the European population.

(i) PUBLIC EXPENDITURE ON EDUCATION (OTHER THAN HIGHER EDUCATION) OF EUROPEAN SCHOLARS IN EACH PROVINCE, 1923-24.

Description of Expenditure.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
Central administration	21,420	9,943	19,082	11,390	61,835
Inspection	30,382	5,283	32,958	11,986	80,609
Medical inspection	4,395	2,750	10,682	1,174	19,001
School board administration	57,247	—	35,069	16,562	108,878
Salaries of teachers (or salary grants), including contributions to Teachers' Pension, Gratuity, or Provident Funds	1,402,422	346,122	1,842,807	599,860	4,191,211
Training of teachers	94,853	15,926	55,363	7,692	173,834
Bursaries	30,014	2,735	} 94,981	20,486	} 329,103
Allowances to boarding establishments	147,804	22,253		10,830	
Rents, interest, and insurance	134,349	19,893	182,491	76,132	412,865
Local maintenance, cleaning, and lighting	67,518	4,939	105,418	6,059	183,934
Furniture and equipment, books, and material	73,587	21,383	93,068	14,363	202,401
Vocational, Technical, and Industrial Education	24,346	5,802	31,655	38,817	100,620
Other	20,297	47,965	21,165	2,741	92,168
TOTAL PUBLIC COST OF EDUCATION....£	2,108,634	504,994	2,524,739	818,092	5,956,459

NOTE.—In the case of the figures relating to administration and inspection, the division of expenditure between European and non-European education has necessarily been made on an arbitrary basis.

(ii) COST TO THE STATE, AND TOTAL COST, OF EDUCATION OF EUROPEAN SCHOLARS IN EACH PROVINCE, 1923-24.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Cost of central administration and inspection	£56,197	£17,976	£62,722	£24,550	£161,445
Cost per scholar	8s. 2d.	14s. 5d.	10s. 3d.	10s. 6d.	9s. 9d.
Salaries of teachers	£1,402,422	£346,122	£1,842,807	£599,860	£4,191,211
Cost per scholar	£10. 3s. 8d.	£13. 17s. 10d.	£15. 0s. 2d.	£12. 17s. 3d.	£12. 12s. 5d.
Total State expenditure	£1,986,534	£504,994	£2,524,739	£818,092	£5,834,359
Cost per scholar	£14. 8s. 6d.	£20. 5s. 4d.	£20. 11s. 3d.	£17. 10s. 9d.	£17. 11s. 5d.
Cost per head of European population	£2. 19s. 4d.	£3. 9s. 1d.	£4. 8s. 7d.	£4. 4s. 6d.	£3. 13s. 10d.
Total cost of education	£2,108,634	£504,994	£2,524,739	£818,092	£5,956,459
Cost per scholar	£15. 6s. 3d.	£20. 5s. 4d.	£20. 11s. 3d.	£17. 10s. 9d.	£17. 18s. 9d.
Cost per head of European population	£3. 3s. 0d.	£3. 9s. 1d.	£4. 8s. 7d.	£4 4s. 6d.	£3. 15s. 5d.

(iii) STATE EXPENDITURE ON SCHOOL BUILDINGS AND GROUND, AND NUMBER OF SCHOOL PLACES PROVIDED FOR EUROPEAN SCHOLARS IN EACH PROVINCE, 1923.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Capital value of school buildings to date..£	2,775,097	1,079,060	2,712,151	1,157,694	7,724,002
Expenditure from loans during year.....£	104,551	18,510	170,417	66,127	359,605
Payments on loan interest and redemption during the year.....£	99,410	31,403	91,727	45,755	268,295
Additional number of school places provided during the year.....No.	*	1,072	4,437	*	—
Additional number of places in hostels provided during the year.....No.	*	—	190	*	—

* Not available.

(iv) *Bursaries Granted during the Year* 1923.—(*a*) *Cape of Good Hope.*—The number of bursaries granted for general educational purposes during the year was 14, involving an expenditure of £140. These bursaries are awarded to specially meritorious candidates for the Secondary School Junior Certificate Examination. In connexion with secondary education, 1,448 bursaries, to the value of £19,725 were granted, involving boarders, and 57, to the value of £288, involving transport.

(*b*) *Natal.*—In the Natal Province the number of bursaries granted for educational purposes and to boarders during the year was 265, reflecting an expenditure of £2,316. These bursaries represented free places, i.e. free books and tuition, and any computation of the amount expended would be impracticable.

(*c*) *Transvaal.*—The number of bursaries issued in the Transvaal for general educational purposes was 598, representing an expenditure of £6,410. Transport bursaries totalled 9,385 to the value of £11,787. Bursaries granted to boarders numbered 8,416, the resulting expenditure amounting to £182,769.

(*d*) *Orange Free State.*—The following figures relate to bursaries granted in the Orange Free State: For general educational purposes, 691, to the value of £9,714; for boarders, 403, to the value of £2,105; and for transport 53, to the value of £139.

4. **Statistics of Education of European Scholars in certain Urban Areas.**—The following tables give in summary particulars as to schools for European scholars in certain of the more important towns and urban areas in the Union :—

(i) EDUCATION OTHER THAN HIGHER EDUCATION OF EUROPEAN SCHOLARS—NUMBER OF STATE AND STATE-AIDED SCHOOLS IN CERTAIN URBAN AREAS, 1923.

Town or Area.	Primary.	Beyond Primary.	Total.	Training Colleges and Schools.	Special Schools.*	All Schools and Institutions.
Cape Peninsula..	75	15	90	1	11	102
East London....	9	2	11	—	2	13
Grahamstown...	7	2	9	1	2	12
Kimberley.....	12	3	15	1	1	17
Paarl.....	5	4	9	1	—	10
Port Elizabeth..	16	2	18	—	4	22
Stellenbosch.....	2	5	7	1	—	8
Wellington.....	2	2	4	1	1	6
Durban.....	24	4	28	—	1	29
Pietermaritzburg	11	3	14	1	3	18
Johannesburg...	72	10	82	1	19	102
East Rand.....	41	4	45	1	11	57
West Rand.....	23	2	25	—	4	29
Pretoria.....	32	6	38	1	9	48
Bloemfontein....	5	7	12	1	1	14

* Including Evening Schools in the Cape of Good Hope and Transvaal.

(ii) ENROLMENT OF EUROPEAN SCHOLARS AND STUDENTS AND NUMBER OF TEACHERS IN CERTAIN URBAN AREAS, LAST QUARTER, 1923.

Town or Area.	Enrolment in Primary and Beyond Primary Schools.*			Students in Training Colleges and Schools.		Students in Special Schools.		All Scholars and Students.	Teachers.
	Boys.	Girls.	Total.	Male.	Female.	Male.	Female.		
Cape Peninsula..	11,260	10,559	21,819	12	143	630	247	22,851	826
East London....	1,748	1,587	3,335	—	—	154	—	3,489	120
Grahamstown...	643	783	1,426	—	178	20	82	1,706	75
Kimberley.....	1,731	2,826	4,557	12	55	159	—	4,783	147
Paarl.....	1,045	885	1,930	69	147	—	—	2,146	95
Port Elizabeth..	2,493	2,484	4,977	—	—	112	69	5,158	188
Stellenbosch.....	1,152	1,103	2,255	—	57	—	—	2,312	102
Wellington.....	372	507	879	24	118	—	32	1,053	52
Durban.....	4,681	4,023	8,704	—	—	—	—	8,704	348
Pietermaritzburg	1,770	1,823	3,593	33	116	497	429	4,668	216
Johannesburg...	14,485	13,701	28,186	50	115	290	316	28,957	1,046
East Rand.....	6,366	5,828	12,194	84	122	88	—	12,488	442
West Rand.....	2,996	2,750	5,746	—	—	—	—	5,746	213
Pretoria.....	5,155	4,927	10,082	124	82	139	—	10,427	440
Bloemfontein....	1,772	1,866	3,638	37	97	56	—	3,828	243

* Including Scholars in Evening Schools in the Cape of Good Hope and Transvaal.

5. Statistics as to Education of Non-European Scholars.—The following tables give such statistics as are available in respect of State and State-aided education of non-European scholars. Particulars as to expenditure are only approximate, as an arbitrary line of allocation has been taken in respect of certain items of expenditure incurred by the Provincial Education Departments.

In the Orange Free State an amount is provided annually as a grant in aid of secular education of natives. This is paid as an out-and-out grant to religious denominations conducting mission schools, and is allocated in proportion to the numbers attending the schools. An exception is made in the case of Waaihoek Evening Classes (Waaihoek Location, Bloemfontein), to which a fixed amount of £36 is paid annually. This grant came into force in 1902–03. For that financial year it amounted to £2,000. For 1903–04 and 1904–05 it was reduced to £1,500. In 1905–06 it was £1,700. From 1906–07 to 1909–10 it was £2,000. In 1910–11 it was fixed at £4,000, at which figure it still stands.

STATE AND STATE-AIDED SCHOOLS FOR NON-EUROPEAN SCHOLARS.

(i) NUMBER OF STATE AND STATE-AIDED SCHOOLS AND STATE EXPENDITURE ON EDUCATION OF NON-EUROPEAN SCHOLARS, IN THE UNION, 1917 TO 1924.

Year.	Number of Schools.				Training Schools.	Special Schools.	Expenditure.	Expenditure per Head.
	Native.	Asiatic.	Other Non-European.	Total.				
							£	£ s. d.
1917.....	920	45	1,970	2,935	27	7	308,536	1 10 8
1918.....	—	—	—	2,877	27	10	327,741	1 9 9
1919.....	2,533	45	430	3.008	29	9	363,901	1 12 7
1920.....	2,593	49	449	3,091	29	9	538,200	2 5 2
1921.....	2,740	54	455	3,249	27	9	555,484	2 5 2
1922.....	2,746	51	463	3,260	26	8	553,299	2 3 11
1923.....	2,753	57	467	3,277	27	8	626,734	2 7 6
1924.....	2,695	57	497	3,249	27	8	642,195	2 8 11

(ii) NUMBER OF STATE AND STATE-AIDED SCHOOLS AND STATE EXPENDITURE ON EDUCATION OF NON-EUROPEAN SCHOLARS, IN EACH PROVINCE, 1923.

Province.	Number of Schools.				Training Schools.	Special Schools.	Expenditure.
	Native.	Asiatic.	Other Non-European.	Total.			
							£
Cape of Good Hope	1,585	—	422	2,007	18*	7†	427,229
Natal	499	52	20	571	5‡	—	96,209
Transvaal	394	5	23	422	3	1	88,183
Orange Free State	275	—	2	277	1	—	15,113
UNION	2,753	57	467	3,277	27	8	626,734

* Including four non-European Training Schools.
† Evening Schools.
‡ Also four classes.

(iii) NUMBER OF NON-EUROPEAN SCHOLARS AND TEACHERS IN STATE AND STATE-AIDED SCHOOLS IN THE UNION, 1917 TO 1924.

Year.	Native.			Asiatic and Other Non-European.			All Scholars.	Percentage of Attendance to Average Enrolment.	Number of Teachers.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.			
1917...	18,910*	24,382*	56,845	71,509	73,065	144,574†	201,419	82·6	5,476
1918...	20,234*	24,463*	58,560	81,950	79,594	161,544†	220,104	83·6	5,692
1919...	—	—	168,770	—	—	54,514	223,284	83·3	5,603
1920...	—	—	182,647	—	—	55,490	238,137	83·9	6,145
1921...	—	—	185,692	—	—	60,254	245,946	84·3	6,310
1922...	93,188	95,871	189,059	—	—	62,813	251,872	83·3	6,615
1923...	90,252	110,666	200,918	—	—	62,820	263,738	83·6	6,731
1924...	87,570	111,193	198,763	—	—	64,000	262,763	83·3	6,775

* Natal and Transvaal only. † Including native scholars in Cape of Good Hope.

(iv) NUMBER OF NON-EUROPEAN SCHOLARS IN STATE AND STATE-AIDED SCHOOLS IN EACH PROVINCE, LAST QUARTER, 1923.

Province.	Native.			Asiatic.			Other Non-European.			All Scholars.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	
Cape of Good Hope	53,846	65,870	119,716	—	—	—	23,541	24,604	48,145	167,861
Natal	11,642	17,401	29,043	7,035	1,189	8,224	902	994	1,896	39,163
Transvaal	17,883	18,370	36,253	511	90	601	1,974	1,871	3,845	40,699
Orange Free State	6,881	9,025	15,906	*	*	*	57	52	109	16,015
UNION	90,252	110,666	200,918	7,546†	1,279†	8,825†	26,474	27,521	53,995	263,738

* Not available. † Excluding Cape and Orange Free State.

(v) NUMBER OF NON-EUROPEAN TEACHERS IN STATE AND STATE-AIDED SCHOOLS IN EACH PROVINCE, LAST QUARTER, 1923.

Teachers.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Certificated	3,287	797	564	119	4,767
Uncertificated	868	363	463	270	1,964
TOTAL	4,155	1,160	1,027	389	6,731

(vi) ENROLMENT OF NON-EUROPEAN SCHOLARS IN STATE AND STATE-AIDED SCHOOLS IN LAST QUARTER, AVERAGE ENROLMENT, AND AVERAGE ATTENDANCE, IN EACH PROVINCE, 1923.

Province.	Enrolment in Last Quarter.			Average Enrolment for Year.	Average Attendance for Year.	Percentage of Attendance to Average Enrolment.
	Boys.	Girls.	Total.			
Cape of Good Hope.....	77,387	90,474	167,861	164,302	136,776	83·2
Natal.....	19,579	19,584	39,163	38,806	33,179	85·5
Transvaal.....	20,368	20,331	40,699	38,322	31,960	83·4
†Orange Free State.....	*	*	16,015	*	*	*
UNION.....	117,334	130,389	263,738	241,430	201,915	83·6

* Not available. † See table (viii) in this section.

(vii) TRAINING INSTITUTIONS FOR NON-EUROPEAN TEACHERS IN EACH PROVINCE, LAST QUARTER, 1923.

Province.	Number of Institutions.	Number of Students.			Number of Teachers.		
		Male.	Female.	Total.	European.	Non-European.	Total.
Cape of Good Hope....	18	951	1,064	2,015	91	4	95
Natal.....	9	273	207	480	27	12	39
Transvaal.....	3	208	76	284	20	—	20
Orange Free State.....	1	40	4	44	3	—	3
UNION.....	31	1,472	1,351	2,823	141	16	157

(viii) NATIVE SCHOOLS IN ORANGE FREE STATE, 1923.

Description.	Wesleyan.	Dutch Reformed.	Church of England.	Berlin Mission.	Congregational.	Primitive M'th'dist	Presbyterian.	Other.	Total.
Number of Schools.....	119	73	30	14	9	7	9	17	278
Number of Children (Last Quarter)	6,410	3,764	2,122	672	308	543	433	1,763	16,015
Amount of Grant.....£	1,740	1,012	510	134	72	98	146	288	4,000

There is, in addition, a native industrial school at Thaba 'Nchu for training native girls for domestic service.

(ix) STATE EXPENDITURE ON EDUCATION OF NON-EUROPEAN SCHOLARS IN EACH PROVINCE, 1923–24.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Expenditure.....	£462,435*	£96,209	£86,783	£15,113	£660,540
Expenditure per scholar.....	£2. 15s. 1d.	£2. 9s. 1d.	£2. 2s. 7d.	18s. 10d.	£2. 10s. 1d.

* Represents total expenditure on non-European scholars, including Central Administration and Inspection.

§ 4. Statistics of Private Schools.

There is very little Government regulation of the activities of private schools in the Union. In *Natal*, the Education Department may make grants-in-aid to such schools, including contributions to the salaries of teachers, the purchase of books and equipment, and the cost of sites and buildings. The Department also undertakes, upon request, the inspection of private schools. In the *Transvaal*, the Department has a limited inspectorial power over private schools, which, if attended by ten or more pupils, are required to register and supply returns. In the *Orange Free State*, capitation grants may be made to private schools under conditions laid down in the Education Ordinance. Inspectors of the Department may visit and inspect any private school which is attended by five or more pupils, and the Administrator, on the advice of the Director of Education, may require any alterations in the conduct of the school to be made within a fixed time, and, if the order is not complied with, he may cause such school to be closed forthwith, and the pupils transferred to another school. All private schools must register and supply returns to the Department.

The figures given in the following tables are derived from returns furnished under regulations framed under section 10 of the Statistics Act, No. 38 of 1914, with relation to every school or other educational or training institution in the Union which was not maintained by the Government, was not in receipt of any Government grant, and in which not less than five pupils received instruction other than religious instruction during the calendar year.

(i) NUMBER OF PRIVATE SCHOOLS (ACCORDING TO RACE OF PUPILS) IN EACH PROVINCE, 1917 TO 1924.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
1917.....	107	6	19	19	85	3	29	—	240*	28	268
1918.....	96	8	24	45	81	3	13	—	214†	56	270
1919.....	121	12	50	85	96	22	25	14	292†	133	425
1920.....	101	17	40	45	91	42	15	12	247‡	116	363
1921.....	102	11	35	58	83	87	19	21	239‡	177	416
1922.....	107	14	35	58	86	79	17	18	245§	169	414
1923.....	132	16	25	123	80	107	17	60	254‡	306	560
1924.....	127	15	28	177	114	180	17	—	286†	372	658

* One school, † Four schools, ‡ Three schools, § Two schools, with European pupils also include non-European pupils.

NOTE.—Owing to influenza epidemic in 1918, returns in respect of some schools were unobtainable.

(ii) DATE OF FOUNDATION OF AND RACE OF PUPILS (EUROPEAN AND NON-EUROPEAN) IN PRIVATE SCHOOLS IN EACH PROVINCE, DECEMBER, 1924.

Date of Foundation.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
1880.....	14	1	4	4	1	1	1	—	20	6	26
1881–85..	7	—	—	2	—	2	1	—	8	4	12
1886–90..	3	—	1	—	3	1	—	—	7	1	8
1891–95..	1	—	—	3	—	—	1	—	2	3	5
1896–1900	12*	2	3	7	2	2	—	—	17	11	28
1901–05..	9	—	3	10	9	8	—	—	21	18	39
1906–10..	11	1	3	6	7	8	1	—	22	15	37
1911–15..	14	—	3*	31	14	22	1	—	32	53	85
1916–20..	14	3	3	26	15*	23	3	—	35	52	87
1921–23..	34*	8	8	61	57	94	7	—	106	163	269
Unstated.	8	—	—	27	6	19	2	—	16	46	62
TOTAL..	127	15	28	177	114	180	17	—	286	372	658

* Includes one mixed school.

iii) NUMBER OF PRIVATE SCHOOLS IN EACH PROVINCE, DECEMBER, 1924 (CLASSES OF INSTRUCTION GIVEN AND RACE OF SCHOLARS).

Classification of Schools.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	E.	Non-E.	E.	Non-E.	E.	Non-E.	E.	Non-E.	E.	Non-E.	Total.
Kindergarten	4	—	1	9	25	5	—	—	30	14	44
Elementary and Preparatory	24	5	7	63	26*	103	3	—	60	171	231
General Primary	49†	10	2	105	27	71	9	—	87	186	273
Secondary and High Schools	43	—	17*	—	29	1	3	—	92	1	93
Commercial and Business	7	—	1	—	7	—	2	—	17	—	17
Other	—	—	—	—	—	—	—	—	—	—	—
TOTAL	127	15	28	177	114	180	17	—	286	372	658

* Includes one mixed school. † Includes two mixed schools.

(iv) SUMMARY OF PRIVATE SCHOOLS IN THE UNION, DECEMBER, 1917 TO 1924—NUMBER OF PUPILS AND RELIGIOUS DENOMINATIONS.

YEAR.	Church of England.	Dutch Reformed.	Roman Catholic.	Wesleyan.	Lutheran.	Other Denominations.	Undenominational.	Total.
1917—								
No. of Schools..	44	25	42	6	4	26	121	268
No. of Pupils....	3,052	288	7,608	589	186	945	4,461	17,129
1918—								
No. of Schools...	42	18	70	7	7	43	83	270
No. of Pupils....	2,903	292	9,696	639	300	2,054	3,523	19,407
1919—								
No. of Schools..	54	38	79	14	16	92	132	425
No. of Pupils...	3,765	797	11,431	1,054	643	3,157	6,577	27,424
1920—								
No. of Schools..	39	28	70	15	19	73	119	363
No. of Pupils...	3,663	604	12,182	1,521	1,240	3,365	6,888	29,463
1921—								
No. of Schools..	51	20	85	20	51	68	121	416
No. of Pupils...	3,786	370	12,771	1,782	1,813	3,268	5,838	29,628
1922—								
No. of Schools..	49	24	80	15	33	81	132	414
No. of Pupils...	3,650	634	12,922	1,531	1,639	4,012	5,753	30,141
1923—								
No. of Schools..	56	34	89	49	51	118	163	560
No. of Pupils...	3,750	920	12,674	3,973	2,257	5,490	6,813	35,877
1924—								
No. of Schools..	60	24	92	33	100	158	191	658
No. of Pupils...	4,145	760	12,000	2,315	4,172	6,762	7,228	37,382

(v) PRIVATE SCHOOLS IN THE UNION, DECEMBER, 1924—NUMBER OF PUPILS AND RELIGIOUS DENOMINATIONS.

Race and Number of Pupils.	Church of England.	Dutch Reformed.	Roman Catholic.	Wesleyan.	Lutheran.	Other Denominations.	Undenominational.	Total.
European—								
Under 100.....	24	14	17	1	1	9	140	206
100–199.....	7	—	28	4	—	—	8	47
200–299.....	1	—	15	1	—	1	2	20
300 and over...	3	—	5	—	—	—	1	9
European and non-European—								
Under 100....	—	—	1	—	—	—	2	3
100–199.....	—	—	1	—	—	—	—	1
Non-European—								
Under 100.....	23	9	22	24	94	140	37	349
100–199.....	2	—	3	1	5	7	—	18
200–299.....	—	1	—	2	—	1	1	5
300 and over...	—	—	—	—	—	—	—	—
TOTAL.....	60	24	92	33	100	158	191	658
TOTAL NUMBER OF PUPILS.....	4,145	760	12,000	2,315	4,172	6,762	7,228	37,382

(vi) ENROLMENT IN PRIVATE SCHOOLS, LAST QUARTER, 1917 TO 1924, AND AVERAGE ENROLMENT, AVERAGE ATTENDANCE, AND RACE OF PUPILS.

Year.	Enrolment.		Average Enrolment.		Average Attendance.	
	European.	Non-European.	European.	Non-European.	European.	Non-European.
1917.....	15,956	1,173	15,508	1,134	13,885	992
1918.....	17,275	2,132	17,792	1,987	15,770	1,578
1919.....	22,423	5,001	21,909	4,639	19,491	3,669
1920.....	23,428	6,035	23,188	5,376	20,586	4,345
1921.....	21,589	8,039	21,346	7,199	19,480	5,634
1922.....	21,515	8,626	21,805	7,542	19,959	6,191
1923.....	19,818	16,059	20,459	15,425	18,703	12,242
1924.....	20,490	16,892	*	*	*	*

* Figures no longer obtained.

(vii) ENROLMENT IN PRIVATE SCHOOLS, LAST QUARTER, 1924 (PROVINCES)—AGES AND RACE OF PUPILS.

Age of Pupils in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	E.	Non-E.	E.	Non-E.	E.	Non-E.	E.	Non-E.	E.	Non-E.	Total.
Below 7.....	715	152	158	461	895	340	77	—	1,845	953	2,798
7.....	596	145	117	608	504	542	75	—	1,292	1,295	2,587
8.....	656	165	138	691	555	572	66	—	1,415	1,428	2,843
9.....	732	131	160	695	539	612	56	—	1,487	1,438	2,925
10.....	819	173	177	729	563	767	64	—	1,623	1,669	3,292
11.....	819	114	191	569	551	722	49	—	1,610	1,405	3,015
12.....	810	122	211	677	616	919	41	—	1,678	1,718	3,396
13.....	920	85	245	573	488	849	50	—	1,703	1,507	3,210
14.....	866	103	286	473	450	965	52	—	1,654	1,541	3,195
15.....	862	56	310	393	424	810	38	—	1,634	1,259	2,893
16 and over.	2,224	47	866	1,423	1,284	1,209	175	—	4,549	2,679	7,228
TOTAL.....	10,019	1,293	2,859	7,292	6,869	8,307	743	—	20,490	16,892	37,382

(viii) ENROLMENT, LAST QUARTER, 1924.—CLASSIFICATION OF SCHOOLS AND SEX OF PUPILS.

Classification of Schools.	Enrolment Last Quarter.		
	Male.	Female.	TOTAL.
European—			
Kindergarten.....	183	186	369
Elementary and Preparatory.....	1,314	700	2,014
General Primary.....	1,704	1,217	2,921
Secondary and High Schools.....	6,281	7,505	13,786
Commercial and Business.....	443	957	1,400
Other Schools.....	—	—	—
TOTAL.....	9,925	10,565	20,490
Non-European.....	8,564	8,328	16,892
ALL SCHOLARS.....	18,489	18,893	37,382

(ix) BOARDERS IN PRIVATE SCHOOLS IN EACH PROVINCE, DECEMBER, 1917 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1917.....	1,670	712	1,103	386	3,871
1918.....	2,091	1,330	1,267	128	4,816
1919.....	2,518	1,810	1,816	356	6,500
1920.....	2,895	1,767	1,490	252	6,404
1921.....	2,691	1,552	1,430	413	6,086
1922.....	2,515	1,565	1,496	219	5,795
1923.....	2,374	1,641	1,312	139	5,466
1924.....	2,715	1,701	1,502	179	6,097

(x) BOARDERS IN PRIVATE SCHOOLS IN EACH PROVINCE, DECEMBER, 1924.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
European—					
Boys.....	1,506	667	473	1	2,647
Girls.....	1,209	710	796	178	2,893
TOTAL.....	2,715	1,377	1,269	179	5,540
Non-European—					
Boys.....	—	140	128	—	268
Girls.....	—	184	105	—	289
TOTAL.....	—	324	233	—	557
GRAND TOTAL.....	2,715	1,701	1,502	179	6,097

(xi) TEACHERS IN PRIVATE SCHOOLS IN THE UNION, LAST QUARTER, 1917 TO 1924.

Year.	European.			Non-European.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
1917—							
Graduates.....	58	73	131	—	—	—	131
Non-Graduates...	141	658	799	22	17	39	838
1918—							
Graduates.....	101	112	213	1	2	3	216
Non-Graduates...	173	723	896	25	40	65	961
1919—							
Graduates.....	125	135	260	8	4	12	272
Non-Graduates...	188	933	1,121	64	101	165	1,286
1920—							
Graduates.....	130	131	261	16	7	23	284
Non-Graduates...	209	877	1,086	69	76	145	1,231
1921—							
Graduates.....	127	133	260	25	10	35	295
Non-Graduates...	203	856	1,059	103	90	193	1,252
1922—							
Graduates.....	140	158	298	16	7	23	321
Non-Graduates...	204	832	1,036	111	95	206	1,242
1923—							
Graduates.....	139	143	282	8	7	15	297
Non-Graduates...	202	821	1,023	245	151	396	1,419
1924—							
Graduates.....	162	177	339	52	26	78	417
Non-Graduates...	211	854	1,065	222	163	385	1,450

(xii) **TEACHERS (CERTIFICATED AND UNCERTIFICATED) IN PRIVATE SCHOOLS IN THE UNION, LAST QUARTER, 1924.**

Qualifications.	European.			Non-European.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Graduates of Universities—							
Certificated	64	106	170	26	12	38	208
Uncertificated	98	71	169	26	14	40	209
Non-Graduates—							
Certificated	102	450	552	41	26	67	619
Uncertificated	109	404	513	181	137	318	831
TOTAL	373	1,031	1,404	274	189	463	1,867

§ 5. Medical Inspection of Schools.

(i) *Cape Province.*—Medical Inspection in the Schools of the Cape Province began in 1918 with the appointment of Dr. Karl Bremer. He carried on the work single-handed till 1919, and on his resignation, Dr. Leipoldt of the Transvaal School Medical Service, was seconded to the Cape Province for seven months. He recommended as a first step the appointment of two medical inspectors and four nurses. Dr. Maughan Brown and Dr. Elsie Chubb were appointed as medical inspectors, and Mrs. Davies as head of the school nursing service. Three assistant nurses were appointed in 1920, and since that time the staff has not been increased.

The Cape Province has an area of roughly 300,000 square miles, and a European school population of more than 125,000 children, many of whom live in scattered or thinly populated districts which are far from main roads or railways. It is impossible with the present staff to arrange for regular visits to all the schools under the Department, and with a few exceptions visits have had to be limited to schools under school boards of about 100 enrolment. This is not because the smaller schools do not require visiting—they are most anxious to have inspections—but with so small a staff it is essential to do as much actual inspection as can be got into the time. Days spent in travelling to small and distant schools much reduce the number of children who can be inspected in a year.

The method at present adopted is to inspect certain age groups each year, that is, all children born in certain years are inspected at each visit. These years are so chosen that children of 7–8 years and children of 14–15 years are inspected at a visit, that is, children just entering on their school life, and those nearing its end. This ensures that each child is seen twice during its school course. In addition to these age groups, cases specially selected by the teachers are inspected, and those children found to require medical treatment at the last visit are reinspected to see if defects have been remedied.

Parents are notified of the time of inspection, and are invited to be present. It is possible to do much educative and preventive work if the medical inspector can discuss the child with the parent. It is to be noted that the country parent often takes considerable trouble to attend the inspection of his children. The medical inspector has legal authority to inspect any child in school, and this power has been used in cases where there was a suspicion of infectious disease, or any other urgent reason for the inspection. At the beginning of inspection about 3 per cent. of parents lodged objections; the number is now under 1 per cent., and most of these are withdrawn when the parent is told that every child is inspected in turn, and that his child was not selected because of any supposed carelessness on the part of the parent.

If a child is found to need medical or dental treatment the parent is notified of the defect and the need for treatment. Cases which need special treatment in the school or modified conditions are reported to the teachers.

In the Cape Province there is no provision for the treatment of defects in necessitous children. Those who are unable to pay for private treatment attend hospitals, or are helped by Child Welfare Societies, the A.C.V.V., or similar organizations. But in some areas the difficulty of getting treatment is great, as to reach the nearest doctor or hospital may require a long and expensive journey. Even in towns there is often no provision for the treatment of minor cases, and as far as dental disease goes the only treatment is extracting, except in a few cases where dentists and Child Welfare Societies have combined to give free conservative treatment. The percentage of children obtaining treatment was at first about 40 per cent., but for 1924 reached nearly 60 per cent.

It will be seen from the statistics which follow that of the routine age groups, about 40 per cent. of children are handicapped by physical defects, even if we omit minor cases and cases of early dental decay. About 25 per cent. of the children seen are in need of treatment at the time of examination. This figure is higher for the specially selected cases.

The Cape Province covers such a wide area, and varies so much in climate and conditions of living that it is very difficult to give a general summary of the physical condition of the children which would be true of all areas. Briefly, it may be said that dental decay is much commoner along the coast line than inland, while rheumatism, chorea, and diseases of the nose and throat are commoner at higher altitudes. Malnutrition is much commoner than is usually credited, and though in many instances it is due to poverty, it is also largely due to ignorance of food values, an unbalanced diet, and in times of drought and scarcity to a lack of milk and fresh foods. Bilharziosis is only found in some parts of the Eastern Province, and malaria rarely occurs in the Cape Province itself. Malta fever occurs in certain areas, and trachoma is found in some parts, usually where the poor white problem is acute. On the whole the children in the Cape Province come from healthy stock, and under good conditions develop well. But there is in all classes widespread ignorance as to the essentials for healthy living. With better knowledge of hygiene, an educated public opinion to raise the standard of health, and the provision of a complete service aiming at the prevention of defects, the number of children found defective at medical inspection would diminish rapidly, and the general level of health and efficiency would rise correspondingly.

The following tables show (*a*) the number of children examined, and (*b*) the principal defects observed.

Cape of Good Hope—Medical Inspection of Schools, 1921 *to* 1924.

(*a*) NUMBER OF CHILDREN EXAMINED.

Year.	Number of Schools Visited.	Number of Children Examined.			Number of Children Showing Defects.			Per centage Defective.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.	
				Europeans.				
1921...	176	5,650	5,388	11,038	2,726	2,483	5,209	47·19
1922...	191	5,916	5,613	11,529	2,625	2,389	5,014	43·49
1923...	183	5,581	6,061	11,642	2,330	2,463	4,793	41·17
1924...	178	5,937	5,909	11,846	2,357	2,412	4,769	40·26
				Non-Europeans.				
1921...	10	251	267	518	138	157	295	56·95
1922...	4	55	59	114	27	26	53	46·49
1923...	6	206	156	362	82	72	154	42·54
1924...	4	94	80	174	45	33	78	44·83

(*b*) PRINCIPAL DEFECTS OBSERVED.

Year.	Malnutrition.	Teeth.	Nose and Throat.	Eye and Vision.	Ear and Hearing.	Skin.	Heart.	Anaemia.	Other Defects.
				Europeans.—Boys.					
1921..	762	937	550	505	338	221	113	175	512
1922..	658	924	306	617	252	232	108	156	460
1923..	496	769	306	614	245	189	77	83	480
1924..	144	1,024	193	507	261	190	51	87	477
				Europeans.—Girls.					
1921..	600	905	422	518	248	134	95	167	368
1922..	510	775	278	732	184	160	96	154	376
1923..	418	856	318	851	236	135	76	125	398
1924..	321	1,038	202	724	172	161	50	116	368
				Non-Europeans.—Boys.					
1921..	46	53	27	22	22	11	2	7	63
1922..	12	8	2	1	6	2	2	2	6
1923..	22	30	3	21	5	3	4	4	17
1924..	11	22	3	4	5	5	—	2	7
				Non-Europeans.—Girls.					
1921..	55	67	31	31	19	6	3	11	59
1922..	9	7	2	2	3	3	2	—	7
1923..	22	35	5	21	5	5	3	5	19
1924..	6	18	3	4	2	1	—	1	3

(ii) *Natal.*—In August, 1916, Dr. A. B. M. Thompson was appointed as Medical Inspector of Schools, and Medical Inspection was thereafter carried on as a voluntary service until the Medical Inspection Ordinance, No. 4 of 1918, was passed by the Provincial Council. The necessity for this Ordinance was apparent at a very early stage, as permission to examine verminous children, children suffering from venereal disease and infectious disease, etc., i.e. those children who, from the point of view of the public health, most needed medical inspection, was very frequently refused.

Two school clinics were established, one in the Education Office, Pietermaritzburg, and one in the Town Hall, Durban. Two nurses now attend the school clinic in Durban, and the chief school nurse is in charge of the school clinic in Maritzburg. Another school nurse has been appointed to the Northern District, with headquarters at Dundee, whilst a certificated masseuse is in charge of the clinic at the Open Air School in Durban.

An assistant medical inspector was appointed in 1918, but vacated the appointment after only short service. Dr. A. B. M. Thompson resigned his appointment in 1920, and was succeeded by Dr. C. G. Kay Sharp. At the same time an assistant medical inspector of schools was again appointed, but resigned in 1922.

In 1922 a panel of specialists was formed, to which were appointed the medical practitioners of Pietermaritzburg and Durban, who practice solely in psychiatry, eye, or ear, nose, and throat diseases.

In the scheme of medical inspection of schools in Natal is included periodical visitation of all the Government and Government-aided Schools of the Province, with examination of entrants, children who are fourteen years of age, and such children as parents or teachers may desire to have medically examined (specials). All parents are warned prior to the medical inspection and may consult the medical inspector at school regarding their children's health free of charge. A notice is forwarded to parents regarding all children found to be defective and where necessary a note to the family doctor is also included. No treatment or prescriptions are given at the schools, with the exception of minor dressings. Children who require treatment are referred to their own family doctor or to a school clinic or to a hospital.

A record is kept of every defective child, and such children are "followed up" by the school nurse at subsequent visits. In addition to advice given to the parents who attend medical inspection, the head teacher is also advised as to the limitations, etc., which should be placed on the school life of defective children. Mentally defective children are referred wherever possible, to the psychiatrist. A psychiatric clinic is held once a month in the Durban school clinic. School buildings and hostels are also inspected from a public health point of view at each visit. The Katathermometric Standard of Ventilation is recorded, especially in the hot weather. The Kata-Standards in the coastal schools of Natal are recorded in the report of the medical officer for the Province, 1923 (Education Department, Natal).

The attendance of the medical officer at the school clinics is, on account of the large amount of travelling involved in the medical inspection of schools in the Province, somewhat erratic, but good work is done at these clinics by the school nurses. Minor dressings are provided and advice on all matters appertaining to the health of the school child is given. Treatment is only given to poor or indigent children. The school clinics constitute bureaux of medical advice on all matters appertaining to the health of the school child. At the Durban school clinic a psychiatric clinic is held once a month, Dr. Egerton Brown, O.B.E., or one of his colleagues from the Mental Hospital being in attendance. A psychiatrist attends the Maritzburg school clinic when necessary. Medical statistical records are kept, including details of each child found to be physically or mentally defective.

Infectious diseases occurring in schools in Natal are notifiable to the Education Department. Proposed sites and plans of school buildings, alterations, and sanitation, medical certificates in respect of school teachers and children are examined and reported upon.

The following contributions to the medical journals have been made during the current year :—

"Schistosomiasis in Natal".....	Dr. C. G. Kay Sharp, *S.A. Medical Record.*
"Treatment of Schistosomiasis"...	A Review—Dr. C. G. Kay Sharp, *S.A. Medical Journal.*
"The Prevention of High Myopia in School Children"	Dr. C. G. Kay Sharp, *S.A. Medical Record.*

From the inception of the medical inspection of schools up to December, 1924, 15,845 routine and 9,090 special Medical examinations of children were made. The attendances at the school clinics at Pietermaritzburg and Durban numbered 8,558, while there were in addition 80,713 medical inspections by school nurses.

(iii) *Transvaal.*—Medical Inspection was introduced in this Province in 1914. The first Medical Inspector of Schools was Dr. C. L. Leipoldt, who organized the work and commenced routine inspection. His activities were, however, interrupted in October, 1914, on account of the war, when he had to join the military forces.

In 1915, inspection of schools was resumed, and the staff was increased by the appointment of two assistant medical inspectors of schools and an extra staff nurse. Since 1914 the nursing and medical staff have gradually been increased, and at present there are working eleven school nurses and three full-time medical inspectors of schools (two actually working, one still to be appointed to fill a vacancy).

There are two clinics existing at present in the Transvaal, and the establishment of a third clinic is being considered at Pretoria. The principal clinic in the Transvaal is situated in Johannesburg, and forms the headquarters of the medical inspectors, where all the administrative work, etc., is carried out. The clinic staff in Johannesburg consists of one full-time dentist, two eye specialists, two ear, nose, and throat specialists, two medical officers for minor ailments, and two anaesthetists. All the specialists working are part-time medical officers.

The Johannesburg clinic is also the centre of all medical school work in the Transvaal, and all cases are treated at this centre as much as possible ; but as the clinic is not a hospital and closes over the week-end, all cases that require more than one or two days' hospital treatment are sent to the General Hospital or the Children's Hospital.

The work at the clinic is more or less divided in such a manner as to reserve the school holidays for treatment of country children. These children come to the clinic in batches of ten and even more and are attended to and returned again to their different homes. Only indigent children are treated at Government expense, and part-paying patients are not accepted. Children from country districts can be conveyed to and treated at the clinic free of any charge on the production of a magistrate's certificate of indigency. The intentions of the clinics are not only to treat indigent cases but also to work in an educative sense, that is, to instruct children in general hygiene and to give demonstrations of home nursing, etc., to pupils of the upper standards of the primary schools.

The second fully established clinic is situated at Potchefstroom, where there are at work a part-time medical officer and a part-time dentist.

At Pretoria the medical staff consists of one part-time dentist and one eye specialist, while one of the medical inspectors regularly attends the nucleus of a clinic to deal with minor ailments, etc.

The nursing staff of the Education Department consists of eleven nurses, six of whom are working in the Rand Central area. These nurses visit the schools periodically and supervise the cleanliness, etc., and report on defects which they suspect. They also visit the homes of parents to investigate the conditions under which the children live and to give the parents advice as to the possibilities of carrying out the treatment that has been recommended for their children by the school medical officers. They also try as far as possible, to follow up cases that have received treatment, but on account of the migratory character of the population of the Rand areas the work is handicapped to a very great extent. The remainder of the nursing staff works in the country districts, e.g. Ermelo, East Rand, West Rand, Potchefstroom, and Pretoria. These nurses, of course, have a much wider area to attend to than those of the Rand Central area, and naturally their activities are more limited. The general difficulty in the country districts is transport, and it is not possible for a nurse stationed in a district to visit all the schools in her area. In some areas the difficulty of transport has been overcome by the courtesy of the inspectors of schools, who are willing to convey a nurse from one school to another when they go on their inspection tours. All nurses are instructed to give lectures on hygiene, etc., in the schools in their area. This scheme is being properly carried out in the Rand Central areas at present, but for obvious reasons it is very difficult to do the same in the country districts.

Although medical inspection has gone ahead with enormous strides since 1914, it is still far from having reached its optimum activities. The general stumbling block for the extension of medical school work in the Transvaal is the absence of funds to finance sufficient staff to carry out the work in a more or less satisfactory way. On all sides it is realized that the work is necessary and on principle should be extended as far as possible, but the practical execution is difficult. The method of inspection employed at present by the medical inspector of schools is the following :—

In the towns of the Rand area and at Pretoria the schools are examined as regularly as possible ; approximately one examination every two years, and in these areas only the *entrants-leaver* groups are examined and special cases which are referred to the medical inspectors by the class teachers. The rest of the Transvaal is taken according to the area of each school board and, if possible, is systematically examined. In this way it is possible within a short period to receive enough information about every school in the Transvaal to form an opinion as far as the health conditions, etc., are concerned of each area and also of the whole of the Transvaal. On account of the weather conditions country work is generally done during the winter and town work during the summer terms. Inspections are limited to the primary government schools, and if these are done thoroughly there will be very little left to be done in the high schools. The average number of children examined by each medical inspector is between seven and eight thousand per annum.

(iv) *Orange Free State.*—A school medical service for the Province of the Orange Free State was instituted in July, 1920, by the appointment of Dr. C. F. A. Oberlander as the first Medical Inspector of Schools, and the systematic examination of school children has since been conducted single-handed for the whole of the Province by the present officer, without the assistance of a school nurse.

Although provision has been made on the medical record cards for three routine examinations in the course of the child's school career, inspection is for the present confined to the *entrant-leaver* group ages only, but in addition to these there are non-routine (special) examinations of children presented for some defect by teachers or parents.

Inspection is generally arranged for in a classroom. The principal of the school having selected the children of the definite age-groups for that year, as well as the number of special or urgent cases requiring examination, notifies the parents (or guardians) of the day and hour of the school doctor's visit in order that they may be present at the examination. Every child is examined individually in the presence of the parent, the boys separately from the girls, and the findings are entered upon the record cards, which are kept for future reference. Should a defect be discovered, the parent's attention is drawn to it and a printed card, stating the defect, filled in, urging the parent to seek the advice of the family doctor. Advice bearing on the case is given at the time of examination, but no further treatment is prescribed. The principal keeps a record of the defect and other particulars.

In the absence of a school nurse there is at present no existing arrangement for "following up" defective cases, and no special provision has as yet been made for the treatment of necessitous children, except such as obtains at the local hospitals. In country districts the only available means of treatment of such children is that afforded by the services of the District Surgeon, until the evolution of a school clinic or other adequate machinery. Statistics of treatment, therefore, are based on the records kept by principals of schools.

The outbreak of an infectious disease in a school is notified by the principal to the Education Department, the secretary of the school board, the local magistrate, the medical inspector of schools, Bloemfontein, and the inspector of schools for the district.

Children are excluded from school for the following reasons: (*a*) to prevent the spread of disease; (*b*) on the ground that their uncleanly or verminous condition is detrimental to other scholars, and (*c*) owing to their mental or physical condition they are incapable of receiving proper benefit from the instruction in the school.

SUMMARY OF RESULTS OF INSPECTION, 1920 TO 1924.

Class of Inspection.	Number of Children Examined.	Number of Children Found Defective.	Percentage of Defectives.	Main Defects, with Average Percentage.	Average Percentage of Cases Treated.
				%	
Routine.....	3,273	4,429	47·5	Malnutrition.....10·6	41·1
Special.....	6,183			Teeth.....15·1	
				Nose and Throat....22·7	
				Vision..... 7·1	
				Skin..... 3·7	
				Deformities..... 3·2	
				Hearing..... 3·1	
				Organic Heart..... 0·2	
TOTAL.....	9,456			Intelligence..... 0·9	

The defects registered for teeth, eyes, nose, and throat are absolute defects needing treatment. Were minor defects included not needing treatment, the percentage of defectives would be far higher. Of all the defects prevailing amongst the school population of the Province, those of the mouth and teeth easily furnish the largest percentage. An estimation of the incidence of carious teeth has been taken only in cases of progressive decay causing general impairment of health. There is an unusually high percentage of nose, ear, and throat ailments and a marked prevalence of contagious skin diseases.

In regard to malnutrition, school feeding is provided for by local committees in a great many of the larger town schools of the Province. There is, however, as far as can be gathered, no provision for *care* committee supervision at these centres, the work of selection being left entirely in the hands of the principals and the expense of providing meals defrayed by local voluntary agencies.

The estimate of the number of mentally defective children of the primary school population is based upon the examination mainly of a number of children selected by teachers on the ground of alleged mental deficiency, and is the mean average of widely divergent extremes, as the incidence of mental defect varies considerably in different parts of the country. A special inquiry in regard to the mental calibre of the school population is

under consideration and will occupy the attention of a specially appointed psychiatrist in the course of the year, when more data bearing on the subject will be available and a definite form established by means of which the mental age of every school child throughout the Province may be ascertained.

§ 6. Intelligence Tests.

A committee has been formed under the auspices of the Research Grant Board to investigate the practicability of conducting an intelligence test in the schools of the Union. The members are as follows:—

Professor Wilcocks, Stellenbosch (*Chairman*).
Professor Hoernle, Witwatersrand.
Professor Reyburn, Cape Town.
Dr. Dunston, Commissioner of Mental Hygiene, and
Dr. Van Schalkwyk, Union Education Department.

The committee has decided to test some 60,000 children between the ages of 10 and 15, selected so as to represent the different areas of the Union and the different social strata and classes in it. The committee is now engaged on the task of designing and standardizing tests in both official languages, two sets of tests in each language. It hopes to conduct the actual test during the year 1926.

§ 7. Scientific Research in the Union.*

An article describing the principal scientific research facilities existing in the Union was included in the sixth and previous issues of this *Year Book*, but has not been repeated owing to exigencies of space. Particulars were given in this article of the research work done at various universities and university colleges, the activities of the Research Grant Board, and the organization and work of the South African Institute for Medical Research, with which is associated the Miners' Phthisis Medical Bureau (see page 265). Some reference to the scientific research done at South African universities and colleges will be found in § 1 of this chapter, in the paragraphs devoted to the various institutions. The new buildings being added to the South African Institute for Medical Research, which with equipment will cost about £15,000, were nearing completion at the beginning of 1925. A block of stabling with laboratory attached, for serum horses, has also been added at a cost of £4,000. The Institute, however, is experiencing great difficulty in securing the services of experienced research workers, owing to the apparent disinclination on the part of such workers to leave European centres and to there being no suitably qualified persons graduating from the local universities. During the year commencing 1st April, 1925, the Union Government and the Witwatersrand Native Labour Association have together increased their annual grant to £10,000, each paying in equal proportions. This has permitted of considerable extension in research work, and part of the increased grant is being utilized to carry out research on plague.

For the financial year 1925–26 the Research Grant Board has been provided with a sum of £1,850 to be allocated to the work of miscellaneous research.

§ 8. Miscellaneous.

1. **Public Libraries.**—(i) *General.*—In earlier issues of this *Year Book* (Nos. 1 to 6) historical particulars were given of the four libraries designated by the *Copyright Act* (No. 9 of 1916) for the receipt of all publications copyrighted in the Union, viz., the South African Public Library, Cape Town, the State Library, Pretoria, the Library of the Natal Society, Pietermaritzburg, and the Bloemfontein Public Library. The *South African Public Library*, which is a national institution, was founded in 1818, and is the oldest and largest library in the Union. It contains the Dessinian, Grey, Hofmeyr, and Wessels Collections, and is especially rich in literature relating to South Africa and in sets of scientific serial publications. In 1925, through the beneficence of Sir Abe Bailey, the famous library of the late W. G. Fairbridge, consisting of over 13,000 volumes of surpassing South African importance, comprising copies of works in English and Dutch, was acquired and presented as a gift to the nation. In addition, Sir Abe Bailey gave his own collection consisting of 2,000 volumes, containing many old Dutch works of great value. The collection is being housed in a special building constructed in connexion with the South African Public Library, Capetown, and will be open to the public three days a week. The other three days are reserved for the students of the Cape Town and Stellenbosch Universities, and the Diocesan College, Rondebosch. The *Pretoria State Library* was established in 1887, and has advanced from small beginnings to being one of the most extensive and valuable book collections in South

* A comprehensive report on this subject, prepared by a Committee of the Research Grant Board was published in the *South African Journal of Industries* (Vol. VII, No. 4, April, 1924).

Africa, including as it does a very comprehensive bibliography of early Transvaal records and general South African literature. The *Library of the Natal Society* originated in a small public library, started at Pietermaritzburg in 1846, and was subsequently taken over by the Natal Society, which was founded in 1851 and incorporated in 1874, with the object of promoting the study and cultivation of the various branches of art, science, literature, and philosophy. One of the distinguishing features of the library is the valuable and comprehensive music section. The *Bloemfontein Public Library* was established in 1875, and after many vicissitudes it has now developed into a considerable institution. The library possesses a good collection of Orange Free State records, and one of its features is a children's reading-room, the gift of the municipality, from whom the library has received a great deal of support.

(ii) *Statistics as to Public Libraries.*—The following tables give statistics as to public libraries in receipt of Government grants and other libraries in the Union for a period of years, with (*a*) particulars as to the number of books, number of subscribers, and monthly circulation of books; and (*b*) the amount of revenue and expenditure :—

(*a*) STATISTICS OF PUBLIC LIBRARIES.

(i) SUMMARY, 1913 TO 1924.

YEAR.	NUMBER OF LIBRARIES.	NUMBER OF VOLUMES.		NUMBER OF SUBSCRIBERS.	AVERAGE MONTHLY CIRCULATION.			
		Added during Year.	Total, 31st December.		Total.	Fiction.	Technical and Education.	Other.
					No.	Per cent.	Per cent.	
1913...	206	62,358	976,522	19,528	96,692	79·0	21·0	
1914...	156	49,260	1,031,890	19,954	—	80·0	20·0	
1915...	154	40,857	1,044,577	19,695	106,677	80·0	20·0	
1916...	218	45,662	1,093,672	20,908	115,812	79·6	20·4	
1917...	215	51,331	1,112,879	23,858	153,559	80·6	19·4	
1918...	230	54,389	1,153,136	28,633	158,196	80·5	11·3	8·2
1919...	228	57,895	1,234,751	33,763	197,869	80·0	13·0	7·0
1920...	225	59,413	1,270,213	37,943	217,278	80·8	13·4	5·8
1921...	221	63,468	1,303,089	37,833	234,849	80·0	13·9	6·1
1922...	220	61,680	1,343,775	39,543	266,442	79·0	16·7	4·3
1923...	217	75,271	1,376,584	41,798	257,354	80·8	12·2	7·0
1924...	215	64,142	1,415,747	45,367	282,576	81·4	9·5	9·1

(ii) PARTICULARS, 1924.

Libraries.	Number of Volumes.		Number of Subscribers.	Average Monthly Circulation.			
	Added during Year.	Total, 31st December.		Total.	Fiction.	Technical and Education.	Other.
				No.	Per Cent.	Per Cent.	Per Cent.
South African Public Library, Cape Town.	3,671	143,283	2,380	10,586	51·2	48·8	—
State Library, Pretoria	5,442	74,341	3,504	14,604	69·6	30·4	—
Natal Society's Library, Pietermaritzburg.....	2,395	44,365	1,193	8,374	86·6	7·7	5·7
Durban.....	5,322	39,983	3,123	23,014	73·1	2·6	24·3
Bloemfontein.....	1,154	25,704	754	4,080	89·2	3·6	7·2
Port Elizabeth.....	1,565	54,251	2,281	14,671	*	*	*
Germiston.....	1,153	14,044	1,261	6,754	47·2	7·6	45·2
Johannesburg.....	4,081	65,531	6,593	24,111	69·3	30·7	—
Kimberley.....	1,322	49,746	1,260	7,720	83·8	2·7	13·5
Albany, Grahamstown..	740	29,003	528	3,894	92·2	7·8	—
East London.....	1,723	17,557	700	6,005	87·2	3·4	9·4
Other Libraries (204)..	35,574	857,930	21,790	158,763	86·3	4·4	9·3
TOTAL, 1924 (215)....	64,142	1,415,747	45,367	282,576	81·4	9·4	9·2

* Percentages not available.

(*b*) PUBLIC LIBRARIES—RECEIPTS AND EXPENDITURE.

(i) SUMMARY, 1913 TO 1924.

YEAR.	RECEIPTS.			EXPENDITURE.		
	Government Grant.	Other.	Total.	Books and Periodicals.	Other.	Total.
	£	£	£	£	£	£
1913	15,162	29,941	45,103	17,383	27,689	45,072
1914	14,667	31,990	46,657	14,303	32,083	46,386
1915	14,018	31,591	45,609	13,232	30,977	44,209
1916	14,442	29,459	43,901	14,092	31,476	45,568
1917	13,384	33,793	47,177	16,428	29,741	46,169
1918	13,759	38,868	52,627	16,959	35,354	52,313
1919	15,363	44,620	59,983	21,124	37,342	58,466
1920	16,679	52,588	69,267	25,532	44,582	70,114
1921	18,819	60,766	79,585	26,727	59,104	85,831
1922	16,382	55,996	72,378	26,293	47,836	74,129
1923	15,257	59,314	74,571	26,197	50,955	77,152
1924	14,500	77,237	91,737	25,304	64,599	89,903

(ii) PARTICULARS, 1924.

LIBRARIES.	RECEIPTS.			EXPENDITURE.		
	Government Grant.	Other.	Total.	Books and Periodicals.	Other.	Total.
	£	£	£	£	£	£
South African Public Library, Cape Town	2,500	3,847	6,347	1,788	3,834	5,622
State Library, Pretoria	1,500	2,745	4,245	1,485	2,713	4,198
Natal Society's Library, Pietermaritzburg	—	2,335	2,335	676	1,302	1,978
Durban	75	7,248	7,323	1,072	6,251	7,323
Bloemfontein	—	1,486	1,486	369	989	1,358
Port Elizabeth	450	3,617	4,067	1,140	2,927	4,067
Germiston	—	2,273	2,273	786	1,441	2,227
Johannesburg	—	20,069	20,069	1,731	18,338	20,069
Kimberley	360	2,508	2,868	717	1,843	2,560
Albany, Grahamstown	337	2,879	3,216	325	1,954	2,279
East London	338	1,307	1,645	687	901	1,588
Other Libraries (204)	8,940	26,923	35,863	14,528	22,106	36,634
TOTAL, 1924 (215)...£	14,500	77,237	91,737	25,304	64,599	89,903

2. **Art Galleries.**—Particulars are given hereunder in respect of the South African Art Gallery and the Michaelis Gallery in Cape Town, the Municipal Art Gallery in Durban, the Municipal Art Gallery in Pietermaritzburg, and the Municipal Art Gallery in Johannesburg :—

ART GALLERIES, 1924.

Particulars.	South African Art Gallery, Cape Town.	Michaelis Gallery, Cape Town.	Municipal Art Gallery, Durban.	Municipal Art Gallery, Pietermaritzburg.	Municipal Art Gallery, Johannesburg.
Date of establishment	1872	1916	1892	1903	1910
Number of visitors during year	75,796	25,637	64,895	9,390	65,291
	£	£	£	£	£
Value of buildings and contents—					
Value of buildings	—	—	19,000	150,000	48,775
Value of furniture and fittings	1,000	400	1,526		430
Insured value of other contents (pictures, etc.)	21,000	80,100	41,126	15,734	48,868
TOTAL £	22,000	80,500	61,652	165,734	98,073
	£	£	£	£	£
Receipts—					
Government grant	500	1,000	—	—	—
Municipal and other grants	50	10	2,292	101	—
Other receipts	—	39	51	37	11
TOTAL £	550	1,049	2,343	138	11
	£	£	£	£	£
Expenditure—					
Salaries and wages	261	849	767	30	1,223
Purchase of articles for Gallery	22	44	—	732	—
New buildings	—	—	—	—	—
Other expenditure	57	228	1,576	62	1,573
TOTAL £	340	1,121	2,343	824	2,796

3. **Museums.**—*The South African Museum, Cape Town,* was established in 1855 and is under the control of a Director, who is responsible to the trustees. The present trustees are the Hon. J. W. Jagger, F.S.S., M.L.A. (Chairman), the Right Hon. John X. Merriman, P.C., Sir Thomas Muir, Kt., C.M.G., M.A., LL.D., D.Sc., F.R.S., Professor W. A. Jolly, D.Sc., and Councillor W. F. Fish, J.P. (present Mayor of Cape Town). There is a scientific staff of five assistants under the Director and Keeper.

The total number of specimens dealt with by the staff during the year 1924 was 4,500, of which over 300 were forms new to the collection, and many new to science. The results of the scientific investigation of the Museum collections are published in the "Annals of the South African Museum," twenty-four volumes of which are completed or in course of publication.

An annexe to the Museum, known as the Koopmans De Wet House Museum, is devoted to the exhibition of early Cape-made furniture and domestic appurtenances in use from the Settlement to about the year 1830.

Further particulars, descriptive of the principal collections in the Museum, will be found in the sixth and earlier issues of this *Year Book.* Statistics of the Museum are given in paragraph (iii) below.

(ii) *Transvaal Museum.*—The Transvaal Museum, Pretoria, was established in 1893, and officially opened on 15th May, 1894, by President S. J. P. Kruger and the members of the First and Second Volksraad, under the name of the "Staatsmuseum."

Details of the history and various sections of the Museum are given in the sixth and earlier issues of this *Year Book.* The table in the next paragraph contains statistics of the institution.

(iii) *Particulars of Museums.*—Particulars are given hereunder for the year 1924 in regard to all museums in the Union :—

MUSEUMS—NUMBER OF VISITORS, VALUE OF BUILDINGS, ETC., REVENUE AND EXPENDITURE, 1924.

Museum.	Date of Establishment.	Number of Visitors.	Value of Buildings and Furniture.	Insured Value of Contents.	Receipts.		Total Expenditure.
					Government Grants.	Other.	
		£	£	£	£	£	£
Albany Museum, Grahamstown	1855	*	1,600	17,538	2,626	122	2,239
McGregor Museum, Kimberley	1907	*	11,726	3,500	675	366	962
Kaffrarian Museum, King William's Town	1898	40,000	4,896	2,975	675	152	797
Port Elizabeth	1883	109,204	26,700	22,000	2,250	1,918	3,763
South African Museum, Cape Town	1855	161,803	45,000	6,500	6,200	434	5,434
Durban Museum	1887	65,146	28,755	13,720	—	3,259	3,259
Natal Museum, Pietermaritzburg	1903	30,000	48,150	15,000	1,650	112	2,002
Voortrekkers' Museum, Pietermaritzburg	1912	*	2,500	800	240	21	381
Transvaal Museum, Pretoria	1893	60,806	89,000	100,000	5,696	230	5,612
National Museum, Bloemfontein	1877	32,000	24,000	14,325	1,000	500	1,500

* No record kept.

4. **Zoological Gardens.**—The National Zoological Gardens of South Africa, Pretoria, were established in 1899 under the Government of the late South African Republic, and are under the control of a Director (Dr. A. K. Haagner, F.Z.S.), who is responsible to a Committee of Management (Chairman, H. C. Jorissen, Esq.). The collection of animals is the best of its kind in South Africa, and the gardens rank with some of the oldest in the world for beauty, size, and lay-out.

Zoological Gardens have also been opened at Johannesburg and Durban.

The following table contains a statement of the number of visitors, receipts, and expenditure of Zoological Gardens :—

ZOOLOGICAL GARDENS—NUMBER OF VISITORS, RECEIPTS, EXPENDITURE, ETC., 1924.

HEADING.	National Zoological Gardens, Pretoria.	Zoological Gardens, Johannesburg.	Zoological Gardens, Durban.
Date of establishment	1899	1903	1908
Number of visitors, 1924	105,828	150,000	19,943
Receipts :—	£	£	£
Government grant	6,000	—	—
Municipal and other grants	1,250	—	1,390
Entrance fees	3,241	—	323
Other receipts	2,160	740	501
TOTAL £	12,651	740	2,214
Expenditure :—	£	£	£
Salaries and wages	5,850	9,370	770
Purchase of animals	955	1,000	—
New buildings	77	1,400	—
Animal food	2,957	2,200	482
Other expenditure	2,879	2,550	962
TOTAL £	12,718	16,520	2,214

5. **Botanic Gardens.**—(i) *National Botanic Gardens, Kirstenbosch, near Cape Town.*—The National Botanic Gardens were established on the Kirstenbosch Estate (about 200 morgen, part of the Groote Schuur Estate) on 1st July, 1913, and are controlled by a Board of Trustees acting through a Director, who is one of the two Professors of Botany in the University of Cape Town. The first Director was the late Professor H. H. W. Pearson, M.A., D.Sc., F.R.S., whose interest and work were largely responsible for the establishment of the Gardens. The present Director is Professor R. H. Compton, M.A. ; Curator, Mr. J. W. Mathews, F.R.H.S.

During 1922 the area was increased by 340 morgen, comprising the whole of the Table Mountain slopes immediately behind Kirstenbosch proper, and over to the boundaries of the Cape Town and Wynberg Waterworks Catchment areas. This area has been transferred from the Forest Department as a Nature Reserve for Flora and Fauna.

Descriptive details of the gardens, which occupy a site of remarkable beauty, will be found in the sixth and previous issues of this *Year Book*.

(ii) *General.*—A statement containing particulars of the Botanical Gardens in the Union is given hereunder :—

BOTANICAL GARDENS—NUMBER OF VISITORS, RECEIPTS AND EXPENDITURE, 1924.

Heading.	Municipal Botanic Gardens, Cape Town.	National Botanic Gardens, Kirsten-bosch.	Botanic Gardens, King William's Town.	Botanic Gardens, Grahams-town.	Botanic Gardens, Graaff-Reinet.	Municipal Botanic Gardens, Durban.	Botanic Gardens, Pieter-maritz-burg.
Date of establishment	1892	1913	1895	1853	1870	1848	1874
Number of visitors..	*	†43,619	8,000	40,841	6,000	80,000	23,000
Receipts—	£	£	£	£	£	£	£
Government grant							
Municipal and	563	1,500	175	198	168	233	350
other grants...	—	1,303	—	—	147	398	175
Other receipts....	28	2,158	113	1,121	528	2,566	789
TOTAL.....£	591	4,961	288	1,319	843	3,197	1,314
Expenditure—	£	£	£	£	£	£	£
Salaries and wages	3,128	2,717	392	909	456	1,989	1,035
Purchases.....	136	—	46	252	36	59	135
New buildings....	268	802	—	—	—	—	—
Other expenditure	1,017	771	59	263	351	1,149	177
TOTAL.....£	4,549	4,290	497	1,424	843	3,197	1,347

* No records kept. † Saturdays, Sundays, and Public Holidays only.

6. **Registered Newspapers.**—Every periodical published in the Union, in order to pass through the post at the newspaper rate of postage, must be registered with the Postmaster-General and must have the words, " Registered at the General Post Office as a newspaper," printed, on the front page of each copy. The registration fee is 2s. 6d. per annum. The following table shows the number of newspapers registered in the Union at the 31st December during a series of years :—

NUMBER OF NEWSPAPERS REGISTERED AT 31st DECEMBER, 1911 TO 1924.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	All News-papers.*	Native News-papers.	All News-papers.*	Native News-papers.	All News-papers.*	Native News-papers.	All News-papers.*	Native News-papers.	All News-papers.*	Native News-papers.
1911..	111	4	21	3	70	1	18	—	220	8
1912..	128	4	28	4	84	2	20	—	240	10
1913..	144	4	27	4	89	4	24	—	284	12
1914..	147	4	27	5	87	4	19	—	280	13
1915..	131	5	25	3	84	5	15	—	255	13
1916..	129	6	25	6	85	2	17	—	256	14
1917..	137	7	30	7	93	4	17	—	277	18
1918..	136	6	31	7	93	5	18	—	278	18
1919..	140	6	35	7	102	5	20	—	297	18
1920..	150	4	40	7	105	4	27	3	322	18
1921..	†	5	†	7	†	3	†	3	324	18
1922..	†	†	†	†	†	†	†	†	344	19
1923..	141	7	39	6	104	3	24	—	308	16
1924..	144	7	35	6	99	4	26	1	304	18

* Including native newspapers. † Figures not available.

7. Scientific and Cultural Societies.—The following table gives particulars of some of the more important of these societies. Further details relating to the functions and development of the various organizations were given in the sixth and previous issues of this *Year Book*. These have not been repeated, owing to exigencies of space.

Society.	President.	Secretary.	Publications.	Head-quarters.	Member-ship.
Art, Literature, etc.—					
The South African National Society	The Rt. Hon. F. S. Malan	C. GrahamBotha	Year Book...	Cape Town	307
The Van Riebeeck Society	The Rt.Hon.J.X. Merriman, P.C.	C.Graham Botha	Annual volume	Cape Town	350
Vereniging vir Wetenskap en Kuns	Dr. D. F. Malherbe	R. B. Saayman	(Transcripts of rare documents) Tydskrif vir Wetenskap en Kuns	Bloemfontein	250
Zuidafrikaanse Akademie voor Taal Letteren en Kunst (Incorporated by Act No. 23 of 1921)	Dr. D. F. Malherbe, B.A., Ph.D.	G. S. Preller, Box 1234, Pretoria	Bulletin v. d. Z. A. Akademie (quarterly)	Bloemfontein	50 (limited)
Scientific and Technical (General)—					
The Royal Society of South Africa	Prof. A. Ogg, M.A., B.Sc., Ph.D.	Prof.W.A.Jolly, M.B., Ch.B., D.Sc.	Transactions	Cape Town	220
South African Association for the Advancement of Science	Dr. E. T. Mellor, D.Sc., F.G.S.	Dr. C. F. Juritz, Hon.Gen.Sec., Cape Town. H. E. Wood, Hon.Gen.Sec., Johannesburg H. A. G. Jeffreys, O.B.E., Asst.Gen.Sec.	South African Journal of Science (quarterly)	Johannesburg	908
Associated Scientific and Technical Societies of South Africa	Dr. A. J. Orenstein, C.M.G.	Capt. H. A. G. Jeffreys, O.B.E.	—	Johannesburg	12 constituent societies
Astronomy—					
Astronomical Society of South Africa	J. K. E. Halm, Ph.D., F.R.A.S	H. E. Houghton	Journal	Cape Town	116
Biology—					
The South African Biological Society	Dr. A. Pijper, M.D.	Dr. E. P. Philips, D.Sc.	South African Journal of NaturalHistory (quarterly)	Pretoria	300
Botany—					
Botanical Society of South Africa*	Rt. Hon. Sir James Rose-Innes, P.C., K.C.M.G.	Mrs. F. Bolus..	Journal (annual)	Cape Town	887
Chemistry—					
Cape Chemical Society.	Dr. R. Marloth.	G. F. Britten...	—	Cape Town	60
Chemical, Metallurgical, and Mining Society of South Africa	H. A. White, M.I.M.M.	H. A. G. Jeffreys, O.B.E.	Journal of Proceedings (monthly)	Johannesburg	578
South African Chemical Institute	Dr. James Moir	H. R. Adam...	Proceedings (annual) Journal (twice yearly)	Johannesburg	130
Engineering—					
South African Society of Civil Engineers	A. D. Lewis, M.A., M.Inst. C.E.	G. Stewart. A.M.I.C.E.	Proceedings (monthly, Feb. to Nov. inclusive)	Cape Town	400 (approx.)
South African Institution of Engineers (Incorporated)	C. E. Mason, M.I.Mech.E., M.I.E.E.	W. W. R. Jago	Journal (monthly)	Johannesburg	521
South African Institute of Electrical Engineers	—	—	—	Johannesburg	—
Geology and Geography—					
Geological Society of South Africa	S. H. Haughton, D.Sc.	—	Proceedings and Transactions	Johannesburg	126
South African Geographical Society	Dr. A. L. Hall	J. Muller, B.A..	Journal..... (annual)	Johannesburg	—

* Members and Associates have the privilege of participating in the distribution of surplus plant bulbs, and seeds from the National Botanic Gardens (see page 202).

CHAPTER V.

LABOUR AND INDUSTRIAL CONDITIONS.

§ 1. Union Department of Labour.

1. **Formation of Department of Labour.**—The Ministry of Labour was constituted on the 25th July, 1924, and its constitution was due to a realization of the existence of acute conditions in the economic and industrial life of the Union with which no Department was appointed to deal comprehensively and effectively. The duties of administrating certain laws dealing with labour and industrial questions were assigned to several Departments, but it was not the special duty of any Department to deal with labour questions as a whole; nor was there any administrative machinery to co-ordinate the various functions and to give effect to a national policy.

Consequent upon the constitution of the Ministry of Labour the Department of Labour was established in terms of Government Notice No. 1305 of 6th August, 1924.

The head office of the Department of Labour is located in the Union Buildings, Pretoria, while Divisional Inspectorates have been appointed for the Witwatersrand, Pretoria, Cape Town, Durban, Bloemfontein, Port Elizabeth, East London, Kimberley, and Pietermaritzburg Districts.

2. **Functions of the Department of Labour.**—The primary functions of the Department of Labour are as follows:—

(*a*) Employment generally, including Government works and unemployment relief works.

(*b*) Rehabilitation of the rural poor and unemployed and their training for employment.

(*c*) Conciliation boards, industrial councils, registration of trade unions and employers' organizations, private registry offices, etc.

(*d*) Wage Act.

(*e*) Juvenile affairs.

(*f*) Apprenticeship.

(*g*) Factories.

(*h*) Social conditions and welfare.

(*i*) International Labour Office affairs.

3. **Advisory Council of Labour.**—With a view to achieving effective touch with the views of people outside the machinery and personnel of the Department of Labour itself, the Minister of Labour appointed an advisory council to investigate and advise upon the problems of labour and unemployment from various aspects. The Council meets at intervals at the instance of the Minister, but it is an advisory body only, and is not responsible for the policy of the Ministry of Labour. The interests for which the Council stands may be thus briefly indicated:—

(*a*) The rural interests of agricultural community, involving in particular the difficult problem of the "poor white," and the development of labour and social conditions on the agricultural side.

(*b*) The three great urban occupations of mining, manufacturing, and commerce.

(*c*) Labour in its broadest sense.

(*d*) Social welfare and woman's interests.

The Advisory Council of Labour as originally appointed consisted of the following:—

Rev. M. L. Fick, M.L.A., Messrs. G. H. Beatty, G. A. H. Bridson, J. H. Conradie, M.L.A., E. Cresswell, A. F. Crisp, J. Curran, J. S. Hancock, Walter Marshall, D. McWilliams, A. M. Mostert, Mrs. M. S. Walsh, and Mrs. S. Wardingham, Secretary, C. E. L. Bell.

Mr. J. H. Conradie, M.L.A., and Mr. G. H. Beatty have since resigned from the Council, and the former has been succeeded by Dr. H. P. v. d. Merwe.

Special committees of the Council have examined and reported upon the following questions :—

Rural unemployment.
Urban unemployment.
Conditions on the alluvial diggings.
Registration of trade unions.
Poor relief.
Amendment of the Apprenticeship Act and the Industrial Conciliation Act.

The Advisory Council of Labour, representing as it does various interests in different parts of the Union, fulfils in itself the requirements of the Washington Convention on unemployment as far as the establishment of local committees is concerned. In centres where direct representation is effected by members of the Advisory Council, such unemployment committees have ceased to function and have been replaced by the local members of the Advisory Council of Labour.

4. **The Social and Industrial Review.** —*The Social and Industrial Review*, previous to January, 1926, published as *The South African Labour Gazette*, the first issue of which appeared in April, 1925, under the title of *The Labour Gazette*, is the official organ by which the Department of Labour keeps the public in touch with its work and with the more important aspects of labour and industrial conditions in the Union and in other countries. The *Review* is also sent to Governments in other countries with which an interchange of publications has been arranged.

§ 2. Labour Conditions, Unemployment, and Relief Works.

1. **General Conditions of Labour in the Union.**—All questions concerning the conditions and payment of labour in the Union are affected, and in almost every instance complicated, by the existence of the numerically predominant native and coloured elements of the population. In considering any aspect of labour and industrial matters the presence of native, Asiatic, and other non-European workers largely outnumbering the European workers of the country must be accepted as a qualifying and in some cases a governing factor. The existence of this class of comparatively cheap labour has influenced the development of the country in various ways. The imported Indian labourers of Natal made possible in the early days the remarkable progress of the sugar industry, supplied the tea-planters with suitable workers, and provided much of the necessary labour for railway construction and coal mining. The gold mines of the Witwatersrand have been and are still entirely dependent upon the adequacy of the supplies of native labour ; while in the industrial districts of the Cape Province, and to some extent also in Natal, the coloured worker of mixed race has not only supplied very largely the demand for unskilled labour, but has in many cases qualified as a semi-skilled artizan and not infrequently has shown himself of equal skill with the European artizan. Moreover, practically all the farms in the Union employ native or coloured labour and are indeed almost entirely dependent upon it for all general labouring work in agricultural and pastoral operations.

As the result of the presence of this large section of workers the position of the European worker has been limited to a considerable degree to the more highly remunerated lines of the skilled trades or to the work of supervising, overlooking, and controlling the unskilled labourers who are employed in practically every industrial or agricultural operation in the Union. The unskilled European worker has of necessity found himself almost inevitably in competition with the native or coloured labourer, forced to maintain a higher standard of living, but unable to command a sufficiently high rate of pay. The conditions thus brought into being have affected in the most marked degree every question concerning labour in the Union and have introduced social and economic difficulties of a serious kind, and of a type not to be found in any of the other self-governing Dominions. There is for example in the Union a portion of the population generally known under the somewhat unsatisfactory name of *poor whites*, whose number though never accurately determined is known to be very considerable, and whose presence in the great industrial centres and other urban areas has been recognized as constituting one of the greatest social problems of the Union.

2. **Occupations of Union Population.**—The following table shows the number and percentage of males and females gainfully employed in 1921, in the principal occupations of the country.

PROPORTION OF POPULATION GAINFULLY OCCUPIED IN CERTAIN PURSUITS.

Province, etc.	Occupation.											
	Gainfully Occupied (Total).		Agriculture.		Mining.		Industrial.		Transport and Communication.		Commercial.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
MALE.												
Union.....	439,489	100·0	163,830	37·3	20,162	4·6	93,322	21·2	31,375	7·1	80,164	18·2
Cape.....	183,191	100·0	76,649	41·8	2,333	1·3	34,118	18·6	13,907	7·6	34,632	18·9
Natal.....	44,692	100·0	8,971	20·1	582	1·3	12,782	28·6	6,009	13·4	10,507	23·5
Transvaal..	159,736	100·0	48,101	30·1	16,826	10·5	37,909	23·7	9,141	5·7	28,770	18·0
Orange Free State.....	51,870	100·0	30,109	58·0	421	0·8	8,513	16·4	2,318	4·5	6,255	12·1
Witwatersrand (Urban Areas).....	68,952	100·0	1,550	2·2	12,615	18·3	22,949	33·3	5,142	7·4	11,553	16·7
FEMALE.												
Union.....	74,014	100·0	4,209	5·7	52	—	8,492	11·5	1,385	1·9	23,862	32·2
Cape.....	34,835	100·0	1,981	5·7	19	—	4,252	12·2	459	1·3	10,510	30·2
Natal.....	9,625	100·0	367	3·8	—	—	918	9·5	221	2·3	3,473	36·1
Transvaal..	23,987	100·0	1,253	5·2	33	—	2,841	11·8	625	2·6	8,519	35·5
Orange Free State.....	5,567	100·0	608	10·9	—	—	481	8·6	80	1·4	1,360	24·4
Witwatersrand (Urban Areas).....	15,570	100·0	96	0·6	3	—	2,114	13·6	437	2·8	2,056	13·2

3. Government Employment Exchanges.*—The Labour Department administers employment exchanges at Cape Town, Johannesburg, Pretoria, Durban, Bloemfontein, Port Elizabeth, East London, and Kimberley. Each of these exchanges is under the supervision of a divisional inspector of the Department. Subsidiary employment offices, which are visited at regular intervals by officers of the Department, exist at Krugersdorp, Germiston, Boksburg, Benoni, Brakpan, and Wynberg. Magistrates refer all labour matters arising in their districts to the divisional inspectors at the centres named. A separate employment office is conducted by the Miners' Phthisis Board at Johannesburg, with the object of endeavouring to find employment for men suffering from phthisis.

A system of utilizing certain post offices as subsidiary employment exchanges was inaugurated in October, 1924. The postmasters at these offices work in conjunction with the inspectors of labour for the particular districts in which their offices are situated. By this means it is possible to keep the rural unemployed in touch with the labour conditions in the urban areas, and prevent a drift of unemployed to towns which already have a surplus of unskilled labour. By means of these exchanges it may also become possible to replace in agricultural employment numbers of the rural population congregated in the towns.

The Department issues a monthly bulletin giving information as to the number of applications for employment, the demands from employers for labour, and the number placed in employment at each labour exchange, under the various trade groups. A precis of the inspectors' reports for the month is published in *The Social and Industrial Review*, and is circulated to the Press and the High Commissioner's Office in London, and the Trades Commissioners in South Africa are supplied with information in regard to labour and industrial conditions generally in the Union.

Facilities in the nature of rail warrants are in certain circumstances given to enable unemployed persons to proceed to employment. Such warrants are issued "free" or "on repayment" according to the wage obtained by the applicant. Special interest is taken in the question of settling Europeans and their families on the land, by placing suitable men with farmers needing labourers and in any other way which may be found possible.

* For particulars of the Cape Labour Bureau and other bodies which preceded the present Employment Exchange system, see previous issues of this *Year Book* (Nos. 1 to 6).

The tables given below contain particulars of the employment phase of the work of the several Government employment exchanges for a series of years :—

GOVERNMENT EMPLOYMENT EXCHANGES, 1922 TO 1924.

(*a*) APPLICATIONS FOR EMPLOYMENT.

Trade Groups.	1922.	1923.	1924.								
			Johannesburg.	Pretoria.	Cape Town.	Durban.	Bloemfontein.	Port Elizabeth.	East London.	Kimberley.	Total.
Mining Occupations	4,226	2,549	1,182	73	65	19	10	7	3	104	1,463
Engineering Trades.	6,184	3,552	1,207	461	598	265	170	171	72	210	3,154
Building Trades....	2,765	2,710	966	876	353	107	264	112	184	146	3,008
Printing and Publishing Trades....	216	309	71	30	67	4	4	18	3	4	201
Clerical and Semi-Professional Occupations.....	4,282	3,128	1,042	547	595	233	229	301	128	189	3,264
Food Industries....	448	342	124	66	83	18	25	50	16	39	421
Clothing Industries.	132	80	18	11	9	2	5	3	2	—	50
Woodworking Industries.....	332	275	68	42	77	11	17	13	12	6	246
Other Industries....	513	529	133	77	204	14	27	66	28	43	592
Farm and Garden Occupations.....	1,674	1,883	513	469	771	42	633	548	62	75	3,113
Domestic Occupations.....	1,091	1,067	333	127	198	61	24	66	31	61	901
Overseers, Warders, etc.....	1,538	1,446	193	593	342	38	206	33	52	104	1,561
Handy-men and Unskilled Labourers.	16,951	13,566	6,304	3,449	1,430	445	3,721	372	975	784	17,480
Juveniles.....	8,975	11,074	5,039	1,391	2,719	2,054	392	489	383	2,088	14,555
Females.....	4,069	4,189	1,877	948	834	208	170	305	76	173	4,591
TOTAL.....	53,396	46,699	19,070	9,160	8,345	3,521	5,897	2,554	2,027	4,026	54,600

(*b*) DEMANDS FROM EMPLOYERS.

Trade Groups.	1922.	1923.	1924.								
			Johannesburg.	Pretoria.	Cape Town.	Durban.	Bloemfontein.	Port Elizabeth.	East London.	Kimberley.	Total.
Mining Occupations	18	47	6	7	4	—	—	—	—	6	23
Engineering Trades.	224	235	22	23	56	29	16	18	13	9	186
Building Trades....	399	458	53	89	40	4	76	19	23	14	318
Printing and Publishing Trades....	9	11	1	—	2	—	2	—	1	—	6
Clerical and Semi-Professional Occupations.....	309	199	12	24	17	21	7	72	14	29	196
Food Industries....	29	34	—	2	1	—	2	5	1	2	13
Clothing Industries.	11	8	—	4	—	—	—	—	1	—	5
Woodworking Industries.....	24	48	—	2	7	1	1	2	9	—	22
Other Industries...	39	80	—	8	7	—	—	2	2	1	20
Farm and Garden Occupations.....	201	211	8	130	23	2	31	8	5	3	210
Domestic Occupations.....	94	105	1	8	28	10	5	10	10	8	80
Overseers, Warders, etc.....	185	106	—	20	16	2	313	11	15	4	381
Handy-men and Unskilled Labourers.	1,016	741	21	247	508	133	265	104	74	53	1,405
Juveniles.....	1,071	1,316	465	291	284	309	57	98	98	88	1,690
Females.....	1,854	1,386	276	129	422	41	60	142	15	28	1,113
TOTAL.....	5,483	4,985	865	984	1,415	552	835	491	281	245	5,668

GOVERNMENT EMPLOYMENT EXCHANGES, 1922 TO 1924—(*continued*).

(c) PERSONS PROVIDED WITH EMPLOYMENT.

Trade Groups.	1922.	1923.	1924.								
			Johannesburg.	Pretoria.	Cape Town.	Durban.	Bloemfontein.	Port Elizabeth.	East London.	Kimberley.	Total.
Mining Occupations	18	36	1	11	3	—	—	—	—	5	20
Engineering Trades.	204	198	12	23	53	29	10	15	11	5	158
Building Trades....	333	364	31	86	45	4	51	16	23	10	266
Printing and Publishing Trades....	8	9	1	—	2	—	2	1	1	—	7
Clerical and Semi-Professional Occupations.....	282	172	10	24	17	21	6	44	14	25	161
Food Industries....	24	24	—	2	1	—	1	4	1	2	11
Clothing Industries.	7	3	—	4	—	—	—	—	1	—	5
Woodworking Industries.....	12	24	—	2	5	1	—	—	4	—	12
Other Industries..'.	37	42	—	8	6	—	—	—	2	1	17
Farm and Garden Occupations.....	162	177	8	133	23	2	17	5	5	3	196
Domestic Occupations.....	88	92	1	8	27	8	5	8	9	6	72
Overseers, Warders, etc.....	176	102	—	21	18	2	312	10	14	2	379
Handy-men and Unskilled Labourers.	997	731	20	247	505	133	253	101	74	53	1,386
Juveniles.....	1,053	1,277	483	229	284	309	49	91	89	88	1,622
Females.....	1,225	925	193	127	234	41	34	103	14	13	759
TOTAL.....	4,626*	4,176†	760	925	1,223	550	740	398	262	213	5,071‡

* In addition, 14,507 men were sent to relief works in 1922.
† In addition, 8,714 men were placed on relief works in 1923.
‡ In addition, 8,303 men were placed on relief works in 1924.

4. **Private Registry Offices.**—All private employment exchanges in the Union, which charge or recover any payment for or in connexion with procuring employment, are subject to the provision of section 20 of Act No. 11 of 1924. All such exchanges are required to apply to the Department of Labour for registration and are not permitted to function unless a certificate of registration is issued. Twenty-three private exchanges have been duly registered and, for the most part, operate in connexion with domestic employment.

5. **Unemployment Relief Work.**—Towards the end of 1920, owing to depression and increasing unemployment, it became necessary to institute relief works on Government undertakings with a view to finding employment for those whom the labour exchanges could not assist. A committee of heads of Government Departments, presided over by the Minister of Lands, was appointed to explore possible avenues of employment and to decide upon and assume responsibility for relief work. In the initial stages, the operations of this committee were confined to the Transvaal Province, but its activities were gradually extended throughout the Union. On the establishment of the Department of Labour this committee ceased to function, all works under its surveillance being transferred to that Department.

The relief works may be classified as *subsidized* and *non-subsidized*. In the case of subsidized works the funds voted by Parliament bear in a general way the difference or a part of the difference in cost between the employment of European and native labour. Such differences were paid in the form of subsidies to Government Departments, to the Railway Administration and to municipalities employing European labour on works approved in the first instance by the Unemployment Committee and latterly by the Department of Labour.

6. **Government Relief Workers.**—At the end of 1924, in pursuance of the declared policy of the Government regarding the employment of civilized labour, the Railways Administration assumed full financial responsibility for its European labour force.

As a result of the improved agricultural conditions in 1925, the number of subsidized men on Government relief works has gradually dropped as shown in the following table :—

	March, 1925.	*September*, 1925.
Irrigation Department	769	311
Transvaal Provincial Administration	996	209
Orange Free State Provincial Administration	304	167
Cape Provincial Administration	1,813	—

7. **Municipal Relief Works.**—The acute distress prevailing in 1924, in many of the urban areas, necessitated the institution of some form of relief works.

The Department of Labour agreed to subsidize various municipalities, such subsidy being based on the difference between the customary native daily wage and a fair minimum wage to European labour. The number of subsidized men on such works gradually decreased from 2,906 in September, 1924, to 2,439 in March, 1925, and 1,260 in September, 1925. This reduction has, in part, been due to the offer by the Department of Labour of other work to men so employed, such work being either on afforestation settlements, training farms or agriculture under the direction of the Department.

To obviate the unsatisfactory features of this system of computing subsidy, and with a view to affording local authorities an opportunity of utilizing European labour on a basis of efficient service, efforts were made to recast the system of employment under municipal control. The authorities responsible for local relief works were asked to let out such work in sectional contracts on a basis of European labour with a stipulated minimum wage, the Department of Labour sharing with the authority concerned the difference in cost between this contract price and the price tendered to carry out the work by native labour. Where the authority preferred to carry out the work departmentally in place of letting it by contract, the Department of Labour offered to subsidize the earnings of the workers on piece-work at a rate decreasing as the earnings of the workers rose.

By these means it was hoped to demonstrate the possibilities of utilizing European labour on work hitherto confined to natives and in time gradually to withdraw the subsidy paid by the Department of Labour.

8. **Afforestation Settlements.**—Afforestation settlements have been established at La Motte, Jonkersberg, Loerie, Otterford, Karatara, and Bergplaats in the Cape Province, at Weza in Natal, and at Berlin in the Transvaal. Workers drafted to those settlements are recruited from the relief works and are accompanied by their families, for whom accommodation is provided. Remuneration is arranged on a piece-work basis, on seven of the settlements. The average daily piece-work earnings on these settlements from January to September, 1925, were :—

January	8s. 5d.	June	8s. 8d.
February	8s. 5d.	July	8s. 11d.
March	8s. 11d.	August	8s. 11d.
April	9s. 3d.	September	8s. 11d.
May	9s. 3d.		

These settlements are capable of accommodating approximately 1,000 families, from whom are selected men for agricultural occupations, either with private individuals under Government subsidy (see tenant-farmer system, ¶ 11) or under State schemes for closer settlement.

9. **Rural Unemployment and Rehabilitation of Rural Poor.**—Until complete statistics of unemployment in the Union become available, the position as a whole can only be estimated, and then by no means too closely. Further difficulty is experienced if an attempt is made to classify the unemployed in rural or urban categories as the distress amongst the rural population, due to economic conditions and continued drought, results in a marked drift of the rural unemployed into the urban areas in the hope of obtaining some form of employment. A general indication of the position may, however, be obtained from an examination of the statistics of men employed on the various relief works.

In August, 1922, there were 7,920 men engaged on relief works. In May, 1923, the number had fallen to 4,284. From that date the number rose steadily until in September, 1924, a figure of 10,868 was reached. From that date, the number decreased steadily until at the end of September, 1925, when only 3,857 men remained on these works.

Various estimates have been given of the number of persons in rural areas who would be described generally as *poor whites*. The figures usually accepted vary from 100,000 to 150,000 persons.

10. **Training Farms and Land Settlements.**—Amongst the rural population (including those who have drifted into the towns from the country in which they were born and bred) there is a large number who are landless. Many of those, given the chance, are able to re-establish themselves on the land, and for such men as have some capital, provision is

made under settlement schemes by the Department of Lands. On the other hand, others can only be expected to make good after a considerable amount of discipline and training. To afford such training under discipline, the Department of Labour has established a training farm at Losperfontein, in the Rustenburg district of the Transvaal, on certain lands under irrigation from the Hartebeestpoort Lake. Men are drafted to this farm from both Government and municipal relief works and are given a training in intensive farming. Expert instruction is provided while a welfare superintendent sees to the social welfare of the workers, special attention being given to the education and training of the children. The workers on this farm when trained will be drafted to land settlement schemes under the Department of Lands or will be placed on the land under the *tenant-farmer system*, as agricultural labourers or foremen. Villages are being established on the farm in which the families of the workers are accommodated. No native labour is permitted.

11. **Tenant-Farmer System.**—This system was organized with a view to re-establishing on the land a section of the rural population accustomed to agriculture, but driven off the land by drought, pests, etc. Welfare officers operating under the control of the Department of Labour, cover the various farming districts to obtain from established farmers offers to take on tenant-farmers under this system, each proposition being considered on its merits. Loans not exceeding £150 for each tenant-farmer engaged are granted to the owners for the provision of implements, seed, or cattle, housing material, etc., the tenant-farmer being required to erect his own dwelling. These loans are repayable in yearly instalments. To enable him to maintain his family until his first crop is reaped, a subsidy is paid to the tenant-farmer for the first fifteen months at rates varying with the size of his family, up to a maximum of £5. 7s. 6d. per mensem.

The subsidy is paid at full rates for the first nine months and at half rates for a further six months.

The following table indicates the position as regards the placing of tenant-farmers (30th September, 1925), and may be viewed as the result of one year's application of the scheme :—

Particulars.	*No.*
Tenant-farmers placed and started work	363
Tenant-farmers for whom subsidy authorized and being placed	70
Loans to owners	322
Loans to tenant-farmers	160
Total loans approved	482
Amount of loans approved	£40,243

The placing of a tenant-farmer is conditional upon the farm owner undertaking to provide the necessary supervision, while the rural welfare officers of the Department of Labour exercise a general oversight over all tenant-farmers.

An extension of this scheme is being tried by placing tenant-farmers on a farm at Zanddrift, Brits area, Transvaal, which the Department of Labour has leased for a period of seven years with the option of purchase. Tenant-farmers placed on this farm will be under the direct control of rural welfare officers of the Department. A subsidy will be paid at a maximum rate of £5 per family per month and the products of the farm will be marketed co-operatively. The subsidy paid as well as the interest on the expenditure incurred on the purchase of implements, etc., and a share of the water rates will be charged against each tenant-farmer, and the excess of his share of the produce over and above these charges will be banked to his credit. By this means the tenant-farmer will obtain the full benefit of his work, and, when trained, will have a small reserve of capital with which to re-establish himself on the land.

§ 3. Conciliation Boards, Industrial Councils, Trade Unions, Employers' Organizations, Etc.

1. **Industrial Conciliation Act.**—The primary purpose of this Act (No. 11 of 1924) is " to make provision for the prevention and settlement of disputes between employers and employees by conciliation ; and for the registration and regulation of trade unions and private registry offices."

The Act applies to every industrial and public utility undertaking, to every industry, trade, and occupation, and to every employer and employee engaged in or at any such undertaking, industry, trade, or occupation. It does not extend to agricultural or farming employment, or, with certain exceptions, to Government employment. The establishment of *industrial councils* by employers or employers' organizations on the one hand, and registered trade unions or groups of registered trade unions on the other hand, for the regulation of matters between them and the prevention and settlement of disputes is provided for. Such councils must consist of an equal number of representatives of employers and employees, and are subject to registration. In areas where there are no industrial councils, *conciliation boards* may be formed in certain circumstances. Where both parties to any dispute under consideration by an industrial council or conciliation board apply to the Minister for the appointment of a mediator, or where the Minister thinks that settlement of the dispute

would be assisted thereby, the Minister may appoint a mediator. A majority of representatives of employers and employees respectively on an industrial council or conciliation board may decide upon the appointment of an umpire to give a decision in the event of the arbitrators failing to agree. Awards made by arbitrators or umpires are binding. It is unlawful to strike or lock-out when agreement has been arrived at as a result of the appointment of an arbitrator or umpire, or during the period of operation of any award made as the outcome of such appointment. The Minister may declare, on application by an industrial council or conciliation board, that any agreement arrived at shall be binding upon the parties thereto, and upon the employers and employees represented on the council or board; or may, if he is satisfied that the applicants are sufficiently representative of the undertaking, industry, trade or occupation concerned, declare that the agreement shall be binding upon all employers and employees in that undertaking, industry, trade, or occupation in the area over which the council or board has jurisdiction. The Minister may, at the request of the parties, extend the application of any award. One calendar month's notice of any alteration, or demand for alteration, in the terms of employment must be given by any employer or employee, unless shorter notice is mutually agreed to. If the matter at issue is submitted for consideration by an industrial council or conciliation board within fourteen days, it must await the determination of the body concerned. Special provision is made for the conduct of any dispute between a local authority and its employees engaged upon work connected with the supply of light, power, water, sanitary, transportation or fire extinguishing services which has remained unsettled notwithstanding the efforts of any industrial council or conciliation board. It is unlawful for any employer, employers' organization, trade union, or other person to declare any strike or lock-out until the matter at issue has been investigated by an industrial council, or, where there is no such council, by a conciliation board.

The Act provides for the appointment of a *registrar of trade unions and employers' organizations*, and for the registration of trade unions and employers' organizations, including unions of Government servants. If the registrar is satisfied that in the area, in respect of which it is proposed that the union or organization should be operative, no union or organization is already registered under the Act which is sufficiently representative of the industry concerned, he is required to register such union or organization. Every registered trade union and employers' organization is a body corporate, capable in law of suing and being sued. The laws governing companies, insurance companies, and friendly or provident societies do not apply to trade unions or employers' organizations in respect of the exercise by such unions or organizations of any function or the performance of any act under the Act or rules authorized thereunder.

The registration and regulation of *private registry offices* is obligatory. Persons in charge of registry offices must produce books and give information when required. They must also inform persons seeking employment of any dispute which may exist in the occupation or industry concerned.

The Minister may in certain eventualities step in and carry on any municipal service at the expense of the municipality.

The Act provides penalties for infringements of its provisions and empowers regulations to be made for the effective carrying out of its objects and purposes.

2. **Effects of Industrial Conciliation Act.**—The *Industrial Conciliation Act*, which came into operation in April, 1924, is being extensively used by industry, and the record of strikes and lock-outs since this Act came into operation is negligible. Experience of the administration of the Act goes to show that before entirely effective results can be looked for amending legislation of a more or less minor nature will be necessary. In order to enable industry to avail itself of the provisions of the Act, organization on the part of both employers and employees is necessary, but the ultimate result of the legislation has been to speed up organization both on the part of the employers and employees.

Fourteen conciliation boards and six industrial councils have been appointed, and at least six additional industrial councils are (January, 1926) in the course of formation.

In practically every instance the boards and councils were able to arrive at an agreement. A notable exception, however, occurred in the case of South African Mine Workers' Union conciliation board, in which a mediator was appointed, but the board was unable to arrive at an agreement, the Chamber of Mines not being prepared to accept the report of the mediator. Certain increases in wages, however, were subsequently granted, and further discussion has been left over pending issue of the report of the Economic and Wage Commission.

As stated above, the administration of the Act is still in the early stages, and the provision in the Act to the effect that agreements published by the Minister as the result of the findings of boards and councils are to be made binding for a specific period is making for the smooth working of the Act, in that most of these agreements are limited to a period of twelve months' duration, when they automatically come up for a review and amendment where necessary.

In two instances only, has it been possible for industry to meet on a national basis, viz: the printing and building industries. In all other instances the scope of agreements

has been limited to local areas. It will thus be seen that until such time as the employers and employees are able to organize on a national basis, the full fruits of this legislation will not be forthcoming and the question of inter-area competition and varying conditions will present difficulties.

The following schedule shows the details of conciliation boards and industrial councils appointed under the Act :—

	Matter in Dispute.	Result.
Conciliation Boards.		
1. Springs Mines Municipal Employees....	General working conditions..	Agreement arrived at.
2. Cape Town Tramway Workers.....	General working conditions..	Agreement arrived at.
3. Geldenhuis Deep Gold Mine.....	Alteration of contract wages	Agreement arrived at.
4. South African Mine Workers' Union....	Wages.....	Failed to agree.
5. Municipal Mechanics, Johannesburg.....	General working conditions..	Agreement arrived at.
6. Witwatersrand Building Trades Council.	Employment of a non-union member	Agreement arrived at.
7. Cape Building Industrial Workers.....	General working conditions..	Agreement arrived at.
8. Baking Employees' Association.....	Employment of a non-union member	Failed to agree, but Industrial Council subsequently appointed.
9. South African Reduction Workers.....	Wages of slimes men.....	Agreement arrived at.
10. Witwatersrand Tailors' Association.....	General working conditions..	Agreement arrived at.
11. Cape Furniture Workers.....	General working conditions..	Agreement arrived at.
12. Cape Operative Bakers.....	General working conditions..	Agreement arrived at.
13. Witwatersrand Shop Assistants' Association	General working conditions..	Board still in session.
14. Germiston Municipal Employees.....	Wages.....	Board still in session.
Industrial Councils.		
1. Printing (National) Industry.....	General working conditions..	Agreement arrived at.
2. Building (National) Industry.....	General working conditions..	Agreement arrived at.
3. Witwatersrand Clothing Industry.....	General working conditions..	Agreement arrived at.
4. Witwatersrand Footwear Industry.....	General working conditions..	Agreement arrived at.
5. Witwatersrand Bespoke Tailoring Industry	General working conditions..	Agreement arrived at.
6. Witwatersrand Baking Industry.....	General working conditions..	Agreement arrived at.

3. **Trade Unions Registered under Industrial Conciliation Act.**—The following table gives a list of the trade unions registered under the provisions of the Industrial Conciliation Act.

Month and Year of Registration.	Membership at Date of Registration.	Name of Union.
1924.		
August	100	Manufacturing Tailors Workers' Association and Sick Benefit Society.
,,	874	S.A. Shop Assistants', Warehousemen's, Clerks', and Hairdressers' Association.
,,	1,359	Underground Officials' Association of South Africa.
,,	457	Witwatersrand Tailors' Association.
October	510	Amalgamated Building Trade Union of South Africa.
,,	94	Amalgamated Society of Woodworkers.
,,	2,012	Building Workers' Industrial Union of South Africa.
,,	1,235	S.A. Amalgamated Engine-drivers' and Firemen's Association.
,,	4,557	S.A. Mine Workers' Union.
,,	765	S.A. Reduction Workers' Association.
,,	3,074	S.A. Typographical Union.
November	750	Cape Town and Camps Bay Tramway Workers' Industrial Union.
,,	368	Johannesburg Municipal Employees' Association.
,,	32	Johannesburg Municipal Waterworks Mechanics' Union.
,,	150	Musicians' Union of South Africa (Cape).
,,	80	Operative Plumbers', Gasfitters', and Sheet-metal Workers' Union of the Cape Province.
,,	2,000	S.A. Association of Municipal Employees.
December	2,973	Amalgamated Engineering Union.
,,	215	Commercial Workers' Union.
,,	42	Electrical Trades Union.
,,	26	Engine-drivers' and Firemen's Protection Society.
,,	200	Operative Bakers', Confectioners', and Conductors' Union.
,,	807	S.A. Boilermakers', Ironworkers', and Shipbuilders' Society.
,,	41	Transvaal Association of Mine Secretaries.
1925.		
January	198	Affiliated Plasterers' Trade Union of South Africa.
,,	25	African Stage Employees' Association.
,,	194	Johannesburg Musicians' Union.
,,	250	Natal Mine Workers' Association.
February	300	Cape Province Operative Painters' and Decorators' Union.
,,	1,966	Mine Surface Officials' Association of South Africa.
,,	499	S.A. Postmen's Association.
March	376	Ironmoulders' Trade Union of South Africa.
,,	700	Johannesburg Tramwaymen's Union.
,,	25	Port Elizabeth Operative Plumbers' Association.
,,	37	Queenstown Municipal Employees' Association.
,,	290	S.A. Operative Masons' Society.
,,	5,587	S.A.R. & H. Salaried Staff Association.

Month and Year of Registration.	Membership at Date of Registration.	Name of Union.
1925.		
April	200	Baking Employees' Association.
,,	1,250	Durban Municipal Employees' Society.
,,	282	Kimberley Shop Assistants', Warehousemen's, and Clerks' Association.
,,	40	Port Elizabeth Ostrich Feather Sorters' Association.
,,	3,534	S.A. Society of Bank Officials.
May	100	Bootmaking and Leather Industries Workers' Union.
,,	112	Cape Operative Bricklayers' Society (No. 1).
,,	760	Cape Town Municipal Workers' Association (Coloured).
,,	300	Great Brak River Leather Workers' Union.
,,	45	Kimberley Tramwaymen's Union.
,,	210	National Vehicle Builders' Union of South Africa.
,,	75	Pretoria Musicians' Association.
,,	37	Transvaal Trades Schools Teachers' Association.
June	100	Building Union of the Eastern Province.
,,	250	Cabinetmakers' Union.
,,	280	Johannesburg Boot and Shoe Workers' Union.
,,	43	Maritzburg Municipal Tramwaymen's Union.
,,	300	National Furniture Workers' Industrial Union.
,,	150	Pietermaritzburg Commercial Workers' Union.
July	24	Society of Dental Mechanicians of Natal.
August	86	Natal Musicians' Association.
,,	121	S.A. Association of Assayers.
,,	168	S.A. Meat Trade Employees' Association.
September	167	Liquor Trade and Catering Staff, Transvaal Division.
,,	84	Pretoria Tramwaymen's Union.
,,	34	Transvaal Mineral Waters Employees' Union.
October	160	Diamond Workers' Union.

4. **Employers' Organizations Registered under Industrial Conciliation Act.**—The following table gives a list of the employers' organizations registered under the provisions of the *Industrial Conciliation Act*.

Month and Year of Registration.	Name of Organization.
1924.	
August	Associated Master Printers of Bloemfontein.
,,	Associated Master Printers of the Transvaal.
,,	Border Master Printers' Association.
,,	Cape Chamber of Printing.
,,	Master Builders' and Allied Trades Association, Witwatersrand.
,,	Natal Chamber of Printing.
September	Cape Peninsula Building and Allied Trades Association.
November	Port Elizabeth Master Builders' and Allied Trades Association.
December	Kroonstad Master Builders' Association.
,,	Master Builders' Association, Pietermaritzburg.
1925.	
January	Central Area (Grade 2) Master Printers' Association.
,,	Federation of Master Printers of South Africa.
,,	Newspaper Press Union of South Africa.
February	Master Builders' Association, Durban.
,,	Port Elizabeth Master Printers' Association.
,,	Pretoria Master Builders' and Allied Trades Association.
,,	Pietermaritzburg Chamber of Printing.
March	East London Builders' Association.
April	Bloemfontein Builders' and Allied Trades Association.
,,	Retail Witwatersrand Master Butchers' Association.
May	Heidelberg and District Branch of the Master Builders' Association.
,,	National Federation of Building Trade Employers in South Africa.
,,	Transvaal Chamber of Mines.
,,	Transvaal Launderers' Association.
,,	Witwatersrand Clothing Manufacturers' Association.
June	Engineers' and Founders' Association.
,,	King William's Town Master Builders' Association
,,	Master Builders' and Allied Trades Association, Queenstown.
,,	Transvaal Footwear Manufacturers' Association.
,,	Transvaal Furniture and Upholstery Manufacturers' Association.
July	Johannesburg Commercial Employers' Organization.
August	Cape Engineers' and Founders' Association.
,,	Master Builders' and Allied Trades Association, Griqualand West.
,,	Natal Coal Owners' Society.
September	Cape Wholesale Clothing and Shirts Manufacturers' Association.
,,	Transvaal Merchant Tailors' Association.
,,	Witwatersrand Master Bakers' Association.
,,	Witwatersrand Master Hairdressers' Association.
October	Witwatersrand Mineral Waters Manufacturers' Association.
November	Cape Furniture Manufacturers' Association.

5. **Development of Trade Unionism in South Africa.**—Previous to the Anglo-Boer war, the growth of the trade union movement in South Africa was practically negligible, but towards the close of the nineteenth century, the first branches of some of the international organizations were established, the earliest record being the opening of a branch, in 1881, of the Amalgamated Society of Carpenters and Joiners (now the Amalgamated Society of Woodworkers). Separate typographical societies were in existence at Cape Town and Durban in the early eighties and three branches of the Amalgamated Society of Engineers (now the Amalgamated Engineering Union) were established in 1893 at Durban, Kimberley, and Johannesburg. The Ironmoulders' Society and the South African Engine Drivers' were established in 1896, while in the same year the South African Typographical Union absorbed the various typographical societies into one national union.

In the majority of cases these unions were established by men who had come from overseas, and who, in the case of international organizations, had retained their membership until permission was secured for the opening of local branches. These trade unions did not have much power, nor were their activities very wide-spread until the advent of the industrial upheavals of 1913–1914.

It is interesting to note, however, that in Johannesburg as far back as 1889 a strike took place of the employees of the town engineering shops, when the men demanded a 25 per cent. increase in wages and a reduction of working hours from 54 to 48 hours per week. The strike lasted between three or four weeks. The number of engineering shops at that time in Johannesburg was small; the first to be established was the Old Rand Foundry, which was brought up from Kimberley in 1887.

Several other minor strikes occurred previous to the Anglo-Boer war. The musicians employed at the Johannesburg theatre had a strike in 1897, and about the same time certain building workers employed in building the Johannesburg Post Office went on strike for an increase from £4. 10s. to £5 per week. Another strike of workers employed on buildings occurred about the same time for a similar increase. The two last mentioned strikes only lasted about three hours; the increase being granted in both cases. A strike of mechanics also took place at the Randfontein Estates prior to the Anglo-Boer war.

For a number of years the organized workers in the Transvaal, or more particularly the Witwatersrand, were represented by the Witwatersrand Trades and Labour Council. At the same time the political aspirations of the workers were catered for by an organization known as the Labour Representation Committee. In 1911, the Transvaal Federation of Trades was established to which practically all the representative organizations in existence at that time in the Transvaal became affiliated. This organization to a large extent took over the work of the Witwatersrand Trades and Labour Council, although the Trades and Labour Council continued in existence for about twelve months after the establishment of the federation.

For the first thirteen years of the present century, the trade union movement made slow but steady progress throughout South Africa. In May, 1913, a strike occurred at the Kleinfontein Gold Mine as a result of an attempt on the part of the management to compel five mechanics employed underground to work on Saturday afternoons. This dispute eventually spread and on 4th July developed into a general strike, embracing all classes of workers on the Witwatersrand gold mines; many other industries were also affected. A settlement was finally effected by a conference between three members of the Cabinet and representatives of the Federation of Trades.

The effect of the settlement of this strike on the trade union movement was very marked; the membership of the existing organizations increased rapidly and many new organizations came into existence.

In January, 1914, another upheaval took place in connexion with the strike of railway workers, and on this occasion the Federation was instrumental in calling a sympathetic strike which spread to other centres throughout South Africa.

Simultaneously with the declaration of a general strike on this occasion, martial law was proclaimed throughout certain areas, police and defence units were called up, and the strike collapsed.

As a result of this upheaval the trade union movements suffered a severe set-back, many of the more recently established organizations ceased to exist, and the older unions, including the international labour organizations, lost heavily in membership.

Increased industrial activity as a result of the war, a greater demand for labour and a feeling of discontent on account of the rising cost of living, had its reflex on the trade unions which again became active, and although very small they nevertheless started an energetic campaign of negotiations with the employers which resulted in certain concessions being obtained for the workers.

In 1915, the Transvaal Chamber of Mines recognized for the first time the trade union movement, and a conference was held to discuss certain demands which had been put forward through the South African Industrial Federation on behalf of its affiliated unions. This practice continued so far as the mining industry was concerned right through the war period and until the strike of 1922.

The action of the Transvaal Chamber of Mines in recognizing the trade union movement considerably influenced the position in respect of other employers of labour, and recognition throughout the country became more or less general. Reference boards and joint boards were established for various industries in different centres, and the policy of negotiation was introduced. The constant increase in the cost of living during the latter years of the war, and subsequent to the declaration of peace, caused a considerable amount of unrest, and owing to the ever changing conditions, fresh demands were put forward and negotiations were conducted almost continuously in one industry or another. From the table of strikes attached, it will be seen that during this period the number of disputes leading to strike action continued to increase year by year.

In 1915, there were only 2 industrial disputes recorded throughout the country; in 1916, the number increased to 10; in 1917, there were 22; while in 1918, 23 strikes occurred; in 1919, the number rose to 47. It is worthy of note that during 1919, a number of strikes took place in which native and coloured workers exclusively were involved. In 1920, the high-water mark was reached when 66 strikes occurred in which 105,658 workers were involved and £130,585 lost in wages.

Although the number of strikes increased to such an extent during the period of the policy of negotiation on the mines, there is no question that the system of boards of reference, which had been established, minimized not only the number, but more particularly the duration of these strikes, many of them lasting only one or two days, when a settlement was effected through the board of reference.

Not only did the year 1920 produce the maximum number of strikes, but it also showed a marked increase in membership of the trade unions, while the cost of living continued to rise. During this year severe depression set in, which became more acute towards the end of the year, when the cost of living showed signs of decline, and the first reductions in wages were effected. In the Census returns, the membership of the trade unions and other employees' associations is shown at 31st December, 1920, as 132,754; at 31st December, 1921, this figure had dropped to 107,507. This number was primarily affected by the returns from the National Union of Railways and Harbours Servants which showed a decrease for the twelve months of approximately 20,000 in membership.

Although reductions in wages were being effected, only 25 strikes were recorded during 1921, as against 66 in the previous year. This number still further decreased in 1922, when only 12 strikes were recorded. Included in these is the strike in the Transvaal of the employees of the gold and coal mines, the town engineering shops, and the Victoria Falls Power Company, which finally developed into a general strike resulting in serious disturbances along the Reef and the ultimate declaration of martial law.

As will be seen from the table of disputes attached, 29,001 people were involved in the 12 strikes which took place in 1922, 1,339,508 working days were lost, and £1,817,593 was lost in wages.

As in the case of the 1914 strike, the trade union movement was adversely affected by the strike in 1922. It will also be seen from the table of strikes that following the 1913–1914 trouble, two strikes were recorded during 1915; similarly after the 1922 upheaval, two strikes were recorded during 1923.

From 1911 until 1920, the South African Industrial Federation was generally accepted as the most representative organization in South Africa. During 1920, another organization was formed under the title of the South African Council of Organized Workers. This organization was established with the object of providing a central representative organization which the Government or other bodies might consult for such purposes as the choice of delegates or advisers to represent South Africa at the International Labour Conference or on similar occasions.

After 1920, a number of the most representative trade unions seceded from the South African Industrial Federation. During 1922 and in 1923, an attempt was made to form a new organization, first under the title of the Associated Trade Unions of South Africa, and later under the title of the Co-ordinated Employees' Organization. These attempts, however, did not prove successful.

In 1924, a conference of representatives of all trade unions throughout South Africa was called by the Minister of Labour, in Cape Town, with the object of considering the question of unemployment, and the delegates present also discussed the necessity of establishing a national organization which would be representative of all sections and classes of organized labour. This resulted in the establishment of an organization early in 1925, under the title of the South African Association of Employees' Organizations. This organization at the present moment is the most representative of the organized workers in South Africa.

From 1920 until 1922, the decline in membership of the trade unions was not very marked, but after the 1922 strike and until 1924, the loss in membership was most severe, even in the case of unions which had not been involved in the strike.

With the promulgation of the *Industrial Conciliation Act* of 1924, with its provisions for the registration of trade unions and establishment of industrial councils, interest in the trade unions revived, while in many instances, trade unions have been resuscitated by the assistance of the Department of Labour. Industrial councils have been established and a decided increase in membership will be shown for 1925.

6. **Summary of Industrial Disputes, 1906 to 1925.**—The following table (a) contains a summary of industrial disputes as between the years 1906 to 1925, and (b) a more detailed summary of similar disputes in 1924.

(a) **SUMMARY OF INDUSTRIAL DISPUTES BETWEEN THE YEARS 1906 AND 1925.**

Year.	Number of Strikes beginning each Year.	Number of Workpeople Involved.	Aggregate Duration in Working Days.	Estimated Loss in Wages.
			No.	£
1906	1	49	2,646	1,852
1907	1	6,400	288,000	273,600
1908	—	—	—	—
1909	—	—	—	—
1910	5	421	10,200	10,200
1911	4	860	16,785	9,281
1912	1	884	—	—
1913	5	19,771	89,887	83,749
1914	12	21,927	160,129	136,020
1915	2	—	—	—
1916	10	1,275	1,420	1,095
1917	22	3,457	18,417	9,531
1918	23	2,582	31,786	28,872
1919	47	23,799	537,138	260,409
1920	66	105,658	839,415	130,584
1921	25	9,892	112,357	113,454
1922	12	29,001	1,339,508	1,817,593
1923	2	50	740	960
1924	7	1,856	10,129	20,958
1925*	—	—	—	—

* Several incipient stoppages of work on a very small scale occurred, but owing to the influence of the Industrial Conciliation Act were checked before a strike developed.

NOTE.—In the above table the records up to 1917 are by no means complete, as returns were not then tabulated for all the strikes shown. The latter portion of the table may, however, be accepted as a fairly accurate record.

(b) **SUMMARY OF INDUSTRIAL DISPUTES WHICH OCCURRED IN THE UNION OF SOUTH AFRICA DURING 1924.**

Province, and Date on which Strike Commenced.	Locality and Industry.	Number of Workpeople Directly Affected.		Duration of Strike in Working Days.	Aggregate Working Days Lost.	Estimated Loss in Wages.	
		European.	Non-European.			European.	Non-European.
						£	£
Cape Province.							
10.10.24	Great Brak River (boot and shoe industry)	350	50	2	800	180	20
14.10.24	Oudtshoorn (saddlery and harness)	28	3	4½	139½	23	3
5.8.24	Cape Town District (building trade)	394	635	44	9,054	13,244	6,894
TOTAL...	3	772	688	50½	9,993½	£13,447	£6,917
Transvaal.							
24.11.24	Johannesburg (meat industry)	200	—	2	400	400	—
27.11.24	Johannesburg (boot industry)	75	18	4½	408½	71	17
29.12.24	Germiston (clothing industry)	23	—	½	11½	6	—
TOTAL...	3	298	18	7	820	£477	£17
Orange Free State.							
10.12.24	Frankfort (railway construction)	80	—	4	254	100	—
TOTAL...	1	80	—	4	254	£100	—

7. **Statistics of Trade Unions and other Associations of Employees.**—The following tables give (i) membership of trade unions and other associations of employees for a series of years, and (ii) the distribution of associations of employees and their membership, according to industrial groups, as at the 30th September, 1924.

It was only when the provisions of the *Statistics Act* were applied, in the year 1919, that it was possible to obtain anything approaching complete statistics of employees' associations in the Union. Statistics of trade unions and other associations of employees are now secured annually under the Act.

(i) MEMBERSHIP OF TRADE UNIONS AND OTHER ASSOCIATIONS OF EMPLOYEES IN THE UNION, 1900 TO 1924.

Year.	Membership.	Year.	Membership.	Year.	Membership.
	Number.		Number.		Number.
1900.....	3,836	1916.....	15,367	1921.....	108,242
1905.....	6,343	1917.....	39,152	1922.....	81,861
1910.....	9,178	1918.....	77,819	1923.....	86,865
1914.....	11,941	1919.....	113,797	1924.....	87,147
1915.....	10,538	1920.....	135,140		

(ii) TRADE UNIONS AND OTHER ASSOCIATIONS OF EMPLOYEES IN VARIOUS CLASSES OF OCCUPATION IN THE UNION, NUMBER AND MEMBERSHIP, 30th SEPTEMBER, 1924.

Class of Occupation.	Unions.	Membership.	Class of Occupation.	Unions.	Membership.
	No.	No.		No.	No.
Mining.....	9	11,161	Teaching Services.....	8	9,524
Engineering and Metal Working.....	8	4,195	Municipal and Tramway Services.....	28	7,065
Building.....	11	7,159	Trading and Clerical.....	9	5,651
Printing, Bookbinding, etc.....	1	2,971	Miscellaneous.....	7	13,973
General Manufacturing...	6	1,228			
State Services (excluding Teaching).....	10	24,220	TOTAL.....	97	87,147

NOTE.—In a number of cases craftsmen and others are members of more than one Union. The extent of duplication cannot be given.

Most skilled mechanics in the service of the Railway Administration are members of craft Unions and not of railway Unions. Such membership is therefore not included in "State Services" above.

8. **Associations of Employers.**—Statistics of associations of employers in the Union were taken for the first time in 1919, and are collected annually. The following table gives certain particulars of such associations as at the 30th September, 1924:—

ASSOCIATIONS OF EMPLOYERS IN THE UNION, NUMBER AND MEMBERSHIP, 30th SEPTEMBER, 1924.

Description.	Number of Associations.	Membership.	Description.	Number of Associations.	Membership.
Transvaal Chamber of Mines.....	1	61	Chambers of Industries*..	5	434
Chambers of Commerce..	96	3,667	Municipal Associations....	4	206
			Other.....	76	5,500

* Concerned with all classes of manufacture.

Federated Associations.	Membership.
Associated Chambers of Commerce.....	96
South African Federated Chamber of Industries.....	6
National Federation of Building Trades' Employers in South Africa	17
Federation of Master Printers of South Africa.....	7

§ 4. Juvenile Affairs.

1. **Legislation.**—*The Regulation of Wages, Apprentices, and Improvers Act* (*No.* 29 *of* 1918), which came into force on 1st October, 1918, provides for the establishment of wages boards, and the regulation of the wages of women and young persons in certain trades and occupations specified in the schedule to the Act. *The Wage Act* (*No.* 27 *of* 1925) repeals this Act, which will cease to operate on the promulgation of the Wage Act.

The Juveniles Act (*No.* 33 *of* 1921) makes provision for the establishment of boards to deal with matters affecting the employment, training, welfare, and supervision of juveniles, and for the supply of certain information to such boards. The Minister of Labour may establish a board for any area in the Union, and appoints the members of any board so established. Such members must be representative of employers and employees, as far as possible in equal numbers. The membership must also include persons of special knowledge or experience in educational matters and social conditions.

It is the duty of the principal of every school situated within the board area before the expiry of one month after the commencement of every school term to furnish the board with written information regarding "school-leavers."

Every employer of a juvenile within a board area is called upon to supply to the board particulars of his own name, address, and occupation, and of the name, age and address of the juvenile employee; also, if the board so requires, the nature of the occupation at which the juvenile is employed, as well as particulars of educational attainments and of any continuing educational course which he may be pursuing. Every employer of a juvenile is further required to notify the board of any cessation of such employment.

Under the Act, "juvenile" is defined as "a person who is under the age of eighteen years, and who was subject to laws relating to compulsory education, but shall not include any classes of persons exempted by the Minister."

Regulations under the Act, prescribing the constitution and functions of juvenile affairs boards, were published in August, 1922.

2. **Training and Employment of Juveniles.**—The realization of the necessity for the establishment of a definite system of training and placing juveniles in employment brought into existence a number of voluntary juvenile advisory boards. The first board was established in the year 1915. Further bodies were established in 1917, and the boards have performed much useful work from their inception. Prior to the establishment of the boards little had been done to develop or co-ordinate the work of preparing and placing boys and girls in suitable employment after their school training.

During the year 1918, the boards devoted considerable attention to the apprenticeship problem, in the belief that some more definite system of indenture could be adopted in many avenues of employment, more particularly the skilled trades, in order that the juvenile section of the population might be given courses of training along definite lines. The educational character of apprenticeship contracts was emphasized and a series of conferences on apprenticeship was held under the auspices of the juvenile boards at Pretoria, Johannesburg, Cape Town, Durban, and Bloemfontein, at which a number of useful decisions were reached.

As the efforts of the boards extended and became more widely known the public in the large centres of the Union recognized more and more fully the significance of their work in its bearing on the future of South Africa. The movement has enlisted the enthusiastic support of social workers, educationists, and employers, and employees in industry, etc.

The demands of these advisory bodies for increased powers and for statutory recognition were met by the passing of the *Juveniles Act*, 1921. That Act was based upon the experience of the boards as voluntary bodies. Under the Act, juvenile affairs boards have now been established at Pretoria, Benoni, the Witwatersrand, Durban, Pietermaritzburg, East London, Port Elizabeth, Kimberley, Cape Town, Grahamstown, and Bloemfontein. Non-statutory juvenile boards function at Kimberley and at Cape Town in respect of non-European juveniles, and are recognized and supported by the Department of Labour.

A function of the boards is to advise parents and children in all matters concerning the employment of juveniles, their careers, welfare, and further education. Employment bureaus are directed to assist juveniles in finding suitable work. Boards also undertake to bring to the notice of the Government, other bodies, and the public generally, the existence of evils, and to suggest remedies in all matters concerning the training and welfare of juveniles. They are also empowered to collect and maintain such statistics, bearing upon the employment of juveniles, as are necessary to enable the problems affecting juveniles to be dealt with on the most advantageous lines.

The work of the boards established under the Act, though up to the present of a preliminary and an exploratory character, has been most useful. As affording some indication of the problems with which the boards are dealing, it may be mentioned that the Government messenger service has been converted from a blind-alley occupation to one giving opportunity of promotion to higher positions, subject to the possession of the necessary educational qualifications; and, with a view to assisting in this direction, facilities

for further education have been provided. The practicability of placing town-bred juveniles in occupations of an agricultural kind has been investigated and a "Farm Lads' Bureau" originally established by the *Sunday Times* subsequently taken over by the Witwatersrand Central Juvenile Affairs Board has been successful in placing a large number of lads as learners in agriculture.

Arrangements have also been completed with the Department of Posts and Telegraphs for the recruitment of a considerable portion of its juvenile labour requirements through the juvenile affairs boards. The commercial community is, to a markedly increased degree, utilizing the services of the boards.

Except at Johannesburg and Cape Town, the juvenile affairs boards at the end of 1925 experienced little or no difficulty in placing in employment ex-Standard VI boys of good character. The improved position is largely attributable to the Government policy of widening the openings for employment on a wage upon which *a civilized standard of life can be maintained.*

Difficulty has been experienced by juvenile affairs boards in finding suitable employment for girls and for the residue of boys who do not possess the requisite standard of education and who are otherwise not acceptable to employers. This aspect of the problem is receiving special consideration, but in some ways presents almost insuperable difficulties.

3. **Juvenile Affairs Conferences.**—Two conferences on juvenile affairs were held at Pretoria by the Department of Labour in 1924 and 1925. Useful work was done on each occasion and a large measure of co-ordination of methods and policy was achieved.

§ 5. Apprenticeship.

1. **Apprenticeship Act.**—Under the provisions of this Act (No. 26 of 1922, amended by Act No. 15 of 1924), apprenticeship becomes in a measure compulsory in such trades as decide, under advisory powers vested in special apprenticeship committees, to adopt its provisions. A trade designated by the Minister on the advice of a committee becomes subject to the law. The State assumes certain responsibilities relative to the performance of the terms of an apprenticeship contract, and undertakes the scrutiny and registration of contracts. Payment of premiums for engagement is forbidden, and minimum and maximum ages for apprenticeship are fixed. Transfer and cancellation of contracts in certain circumstances is provided for. Questions of importance for which provision is not specifically made are dealt with by the Minister on the advice of committees representing groups of trades.

Committees must consist of not less than five members appointed for three years, one of whom is to be a chairman appointed by the Minister, and comprise an equal number of employers and employees. Recommendations of the committees, if accepted by the Minister, have the force of law. The Minister, in consultation with the committees, may prescribe the qualifications required by apprentices in particular trades, though the minimum age and the standard of education are fixed. The Minister may, moreover, fix or vary the periods of apprenticeship, having regard to the age and qualifications of the apprentice. Acting with the advice of committees, he is empowered to fix the number of apprentices who may be employed in given shops and to fix rates of wages payable; to investigate any dispute which may arise out of a contract; and to determine, in consultation with a Government education authority, what continuation classes shall be attended by the apprentice. A schedule to the Act provides a form of contract to be followed as nearly as circumstances will permit, whilst another schedule specifies the industries to which the Act may be applied. The industries so scheduled cannot be altered or varied except by amending legislation.

The *Apprenticeship Act* came into operation on the 1st January, 1923. Regulations under the Act, relating chiefly to the contract of apprenticeship, were published in March, 1923. Under an amending Act (No. 15 of 1924) it was constituted an offence for any person to bring pressure to bear on an apprentice to break the conditions of his contract. A clause in the form of contract of apprenticeship rendering it ineligible for an apprentice to belong to a trade union was removed, and it was provided that an apprentice should not absent himself from his employment without the sanction of the inspector of apprenticeship.

2. **Apprenticeship.**—Prior to the passing of the *Apprenticeship Act*, 1922, apprenticeship in the Cape, Natal, and Transvaal Provinces was legalized under *Masters and Servants Acts*, which permitted the indenturing of apprentices by private contracts enforceable by either party. Those provisions had, however, become unsuitable to modern industrial conditions, and it was desired that a system, having the force and sanction of law, should be devised under which youths, to whom good educational opportunities were offered, could learn to become skilled operatives in industry. It was realized that the employment of skilled tradesmen implied the power and afforded the opportunity to train apprentices, and also that the early stage of such employment was highly educative, since it supplied a course which, in industry, was parallel to the secondary cultural course offered by the

high schools. The view was held that modern apprenticeship must take its proper place in the educative system of the nation, being the only sure method of training skilled workers. To meet the needs of the Union in these several respects the *Apprenticeship Act* of 1922 was passed.

3. **Apprenticeship Committees.**—The following apprenticeship committees have been appointed under the Act:—

Transvaal Engineering Apprenticeship Committee.
Witwatersrand Building Apprenticeship Committee.
Pretoria Building Apprenticeship Committee.
Government Apprenticeship Committee.
Railways and Harbours Apprenticeship Committee.
Cape Division Mechanical Engineering Apprenticeship Committee.
Cape Division Building Apprenticeship Committee.
National Printing Apprenticeship Committee.
Cape Furniture Industry Apprenticeship Committee.
Durban Engineering Apprenticeship Committee.
Durban Building Apprenticeship Committee.
Bloemfontein Engineering and Building Apprenticeship Committee.
Port Elizabeth Engineering and Building Apprenticeship Committee.
Port Elizabeth Building Apprenticeship Committee.
East London Engineering Apprenticeship Committee.
East London Building Apprenticeship Committee.
Queenstown Building Apprenticeship Committee.
Kimberley Building and Engineering Apprenticeship Committee.
Pietermaritzburg Building Apprenticeship Committee.

Both employers and employees are giving the apprenticeship question their wholehearted support, and special attention is being devoted to the technical education of the apprentices. In conjunction with apprenticeship committees, the Union Education Department has, in most instances, settled the syllabuses for the courses of technical education which apprentices under contract are required to attend. In the larger centres, provision is made for the instruction necessary to be given at the local technical institute while, for apprentices in the smaller country towns, the question of instituting correspondence courses is under consideration.

At the suggestion of various juvenile affairs boards attempts are being made to institute some form of voluntary apprenticeship in commerce. At the moment large commercial houses import their more senior assistants from overseas, and pressure is being exerted to obviate this unsatisfactory feature in order to open additional avenues of employment for local juveniles.

4. **Wages of Apprentices.**—The wages payable to apprentices may be regulated by the provisions of the *Apprenticeship Act* or by the terms of agreements arrived at under the *Industrial Conciliation Act.* Such wages may also be defined by wages boards operating under the *Wages Regulation Act*, but these latter agreements are rapidly being superseded by the operations of the Apprenticeship and the Industrial Conciliation Acts.

The following tables show the weekly rate of wages paid to apprentices in the (a) building, (b) engineering, (c) printing, and (d) furniture industries during each year's apprenticeship; as fixed under the provisions of the *Apprenticeship Act.*

(a) BUILDING INDUSTRY.

Area.	Occupation.	Weekly Rate of Wages.					
		First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.	Sixth Year.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cape Town.....	Painting, paperhanging, graining and decorating	15 0	20 0	30 0	40 0	50 0	—
,, ...	All other allied trades.....	20 0	25 0	35 0	40 0	50 0	75 0
Witwatersrand..	All allied trades.....	10 0 and 20 0	30 0	45 0	60 0	75 0	—
Durban.....	,, ,, ...	20 0	25 0	35 0	50 0	65 0	—
Port Elizabeth..	,, ,, ...	10 0	15 0	25 0	32 6	40 0	—
East London....	Painting, paperhanging, glazing, etc.	15 0	20 0	30 0	40 0	50 0	—
,, ...	All other allied trades.....	15 0	22 6	35 0	55 0	70 0	—
Kimberley.....	All allied trades.....	12 0	18 0	27 0	39 0	51 0	—
Pietermaritzburg	,, ,, ...	15 0	20 0	30 0	40 0	55 0	—
Pretoria.....	,, ,, ...	22 0	33 0	50 0	60 0	90 0	—

(b) ENGINEERING INDUSTRY.

Area.	Weekly Rate of Wages.				
	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.
	s. d.	s. d.	s. d.	s. d.	s. d.
Kimberley.....	12 0	18 0	27 0	39 0	51 0
Transvaal.....	12 0	18 0	27 0	39 0	51 0
Cape Town.....	10 0	15 0	20 0	30 0	40 0
Durban.....	18 0	23 0	28 0	40 0	60 0
Port Elizabeth.....	12 6	17 6	27 6	35 0	40 0

(c) PRINTING INDUSTRY.

Period.	Grade A.	Grade B.	Grade C.	Grade D.	Grade I.	Grade II.	Grade III.	Grade IV.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
First Year.....	19 5	18 4	16 8	15 0	20 9	22 6	24 3	26 0
Second Year...	23 4	22 0	20 0	18 0	25 0	27 0	29 0	31 0
Third Year....	29 1	27 6	25 0	22 6	31 3	33 9	36 3	39 0
Fourth Year...	37 10	35 9	32 6	29 3	40 9	44 0	47 3	50 3
Fifth Year.....	46 8	44 0	40 0	36 0	50 0	54 0	58 0	62 0
Sixth Year.....	55 4	52 3	47 6	42 9	59 6	64 3	69 0	73 9
Seventh Year..	67 0	63 3	57 6	51 9	71 9	77 9	83 6	89 3

The nominal period of apprenticeship in the printing industry is seven years, and the educational qualification is Standard VII. However, the period is reduced to six years in the case of an apprentice who has passed Standard VIII, or its equivalent, or the Junior Certificate examination and the commencing scale of pay applied is that of the second year. A boy who has passed Standard X, or its equivalent, or holds the Matriculation Certificate, serves an apprenticeship of five years and commences on the scale of pay applicable to the third year.

Definition of Grades.—For the purpose of wages scales for apprentices set out in table (c) above, the following towns and areas shall constitute the grades:—

Grade A.—The municipal areas of Aliwal North, Burghersdorp, Queenstown, King William's Town, and Grahamstown.

Grade B.—The Magisterial Districts of Paarl and Stellenbosch (including Wellington).

Grade C.—The municipal areas of Worcester, Oudtshoorn, Mossel Bay, George, Knysna, Uitenhage, Malmesbury, and the Magisterial District of Tulbagh.

Grade D.—The Cape Province, excluding those areas specified under Grades I, II, A, B, and C.

Grade I.—The Magisterial Districts of the Cape (including Durbanville), Wynberg, Simonstown, Port Elizabeth, and East London.

The Province of Natal, excluding the Magisterial District of Durban.

The Province of the Orange Free State, excluding the Magisterial Districts of Bloemfontein and Kroonstad.

The Province of the Transvaal, excluding the Magisterial Districts of Potchefstroom, Middelburg, Pietersburg, Standerton, Pretoria, Heidelberg, and the Witwatersrand as defined in Grade IV.

Grade II.—The Magisterial Districts of Kimberley, Hay, Herbert, and Barkly West (Cape Province).

The Magisterial Districts of Potchefstroom, Ventersdorp, and Klerksdorp, as defined in Proclamation No. 242 of 1922.

The Magisterial Districts of Middelburg, Heidelberg Pietersburg, and Standerton. (Transvaal).

The Magisterial District of Kroonstad (Orange Free State).

Grade III.—The Magisterial District of Durban (Natal).

The Magisterial District of Bloemfontein (Orange Free State).

Grade IV.—The Magisterial Districts of Krugersdorp, Johannesburg, Germiston, Boksburg, Benoni, and Springs (referred to under Grade I as the Witwatersrand), and the Magisterial District of Pretoria.

(d) **FURNITURE INDUSTRY (CAPE DIVISION).**

Occupation.	Weekly Rate of Wages.				
	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.
	s. d.	s. d.	s. d.	s. d.	s. d.
Cabinet-making, cabinet-machining, carving, woodturning, chair-making, upholstering	15 0	20 0	25 0	32 6	42 6
Cabinet-polishing	15 0	20 0	25 0	32 6	—
Bed-making	10 0	15 0	20 6	—	—

The following table shows the wages of apprentices in the baking industry on the Witwatersrand and in the Cape Peninsula, fixed by agreement under the *Industrial Conciliation Act.*

(e) **WAGES OF APPRENTICES IN THE BAKING INDUSTRY.**

Period.	Cape Peninsula.		Witwatersrand.
	Rate per Hour.	Rate per Week.	Rate per Week.
	d.	s. d.	s. d.
First Year	4	16 8	20 0
Second Year	5	20 10	30 0
Third Year	6	25 0	40 0
Fourth Year	8	33 4	50 0
Fifth Year	10	41 8	60 0
Sixth Year	14	58 4	—

§ 6. Wage and Industrial Legislation.

1. **The Wage Act.**—Act No. 27 of 1925 * provides for the constitution of a Wage Board for the Union to consist of three members with power given to the Government to add two members for any particular inquiry—one to represent the employers and one to represent the employees. In order to expedite the work of the Board, should numerous applications be made, divisions of the Board may be created for *ad hoc* inquiries, but the proceedings do not become effective except as endorsed by the Wage Board itself.

The Wage Board begins to function upon a requisition by the Minister, or on the application of a registered trade union or association of employers, or, where no such registered union or association exists, on the application of employees or employers who satisfy the Board as to their representative character. The proviso is made, however, that where there exist registered organizations of both employers and employees sufficiently representative, the Board shall not proceed with any investigation in respect of such trade unless directed to do so by the Minister. The object of this proviso is to empower the Minister to insist upon resort to the conciliation machinery.

Section 3 (2) of the Act defines the considerations which have to be taken into view by the Board in investigating wage and labour conditions, and section 7 defines the subjects upon which the Minister may make a determination in accordance with any report or recommendation of the Board.

The Act further provides for duties of inspection, for the maintenance of certain records, and for a complete system of co-operation between the industrial inspectors of the Department of Labour and the investigations of the Board, with further co-operation with the Board of Trade and Industries.

* Promulgated on 12th February, 1926.

2. **Economic and Wage Commission.**—On account of the upset of values and confusion resulting from the recent war, it was found necessary to conduct an investigation into matters relating to the wages and earnings of labour and other kindred questions. The position as disclosed in the report of the Economic Commission of 1913 had altered materially, and accordingly on the 4th August, 1925, His Excellency the Governor-General appointed an Economic and Wage Commission consisting of:

Stephen Mills, C.M.G., of Melbourne, Australia (Chairman).
William Henry Andrews, Esquire, of Johannesburg.
Professor Henry Clay, M.A., of the University of Manchester, England.
John Martin, Esquire, of Johannesburg.
Willem Hendrik Rood, Esquire, M.L.A., of Nelspruit, Barberton; with
Charles Edward Lowrey Bell, Esquire, as Secretary, and Louis Hotz, Esquire, B.A., as Statistical Assistant.

On the 21st August, 1925, Mr. F. A. W. Lucas, K.C., the chairman-designate of the Wage Board to be appointed in accordance with the provisions of the *Wage Act* (*No.* 27 *of* 1925), was appointed as an additional member of the Commission.

The Commission was directed to inquire into and report upon wages in the Union of South Africa, and to consider the effect of different wage and labour policies upon the opportunities of employment at a wage compatible with a civilized standard of life, with particular reference to—

(1) the range of wage rates and earnings in the Union;
(2) the differentiation of wage rates according to age, sex, experience, responsibility, and skill and also according to special conditions and terms of service imposed by law;
(3) the procedure by which wage rates are settled;
(4) the relation of money wages to real wages and the adjustment of money wages to variations in the cost of living;
(5) the industrial and commercial conditions affecting the amount of wages;
(6) the effect of wage standards upon the distribution of labour between different occupations;
(7) the influence of public wage regulation upon industrial development; and
(8) the need for wider scope for the youth of the country and the effect of the existing conditions in South Africa upon their opportunities of entry into and training in industrial employment.

Such an investigation was rendered the more necessary in view of the new policy as to wage determinations instituted by the *Wage Act.*

3. **Economic and Wage Commission Report.**—The report of the Commission was published in April, 1926 (U.G. 14 of 1926). The document consists principally of two separate reports signed respectively by Messrs. Mills, Clay, and Martin, and Messrs. Andrews, Lucas, and Rood, with certain reservations in the first case by Mr. Mills and in the second case by Mr. Andrews.

(i) *The Mills–Clay–Martin Report* is divided into five chapters. The first chapter gives a review of existing wage conditions in the Union, the movement of wages in various occupations over a period of years with particular reference to the cost of living and the level of real wages, and a statement embodying a comparison of money wages and the level of real wages in South Africa and a number of centres outside the Union. Stress is laid on the wide disparity of wage rates between different areas and occupations in the Union, and also on the gap between skilled and other classes of wages, and details are shown of wage and labour conditions in smaller urban centres and in agriculture. The exclusion of "Sundries," when the question of wages in relation to the cost of living is under consideration, is recommended. The international comparison of wages is accompanied by estimates of the national incomes of different countries, and the conclusion is reached that the level of urban skilled wage rates is high in South Africa—"far higher than in any European country, higher than in Australia, about as high as in Canada, and exceeded only by the United States of America." When real wages are considered, "the advantage of South Africa over Europe is reduced, but remains considerable, real wages being about 40 per cent. above the highest European level, namely, London," while South Africa falls slightly below Australia and Canada. On the basis of capacity to pay, it is asserted that "the rates of wages in South Africa are relatively far higher than in any other country."

Chapter II deals with the procedure operative in the settlement of wages in the Union, and consideration is given to the question under the headings of (*a*) individual contract, (*b*) collective bargaining, and (*c*) procedure as laid down by statute. In the latter context an analysis is made of the *Regulation of Wages Act,* 1918 (now repealed by the *Wage Act* of 1925), the *Apprenticeship Act,* 1922, the *Industrial Conciliation Act,* 1924, and the *Wage Act,* 1925, and an estimate is made of the objects and effect of these measures. Particular attention is devoted to a definition of the respective spheres within which the two last-named Acts should operate. The suggestion is made that the Wage Board appointed under the 1925 Act should concentrate its activities on the improvement of the wage and

labour conditions in the so-called "sweated" industries, and further that a clear line of demarcation should be drawn, as a matter of administrative practice, between the operations of the two Acts, so that resort from the *Industrial Conciliation Act* to the machinery inaugurated under the *Wage Act*, at the will of discontented parties to an agreement under the former Act, should be discouraged, if not made impossible. At the same time, it is recommended that the Wage Board should be placed in the position of a co-ordinating authority on all questions of wage regulation within the Union, in order that the existing system of conflicting wage policies among different wage-fixing bodies may be eliminated as far as possible.

Chapter III is concerned with the consideration of the various factors which should enter into any system of public wage-regulation, with special reference to the conditions influencing the operation of such a system in South Africa. The general conclusion reached is that policies aiming at the regulation of the level of wages can have only a limited effect, since the determining factor is the volume of production in a country, i.e. the national income, which cannot be directly increased by a system of wage regulation *per se*, though it may be indirectly influenced to its advantage (by an increase in the efficiency of labour) or to its disadvantage (by a dislocation of existing economic conditions and relations). In South Africa, where, it is stated, a relatively low average production is accompanied by a very high average European wage, it is affirmed that a policy of public wage regulation has a considerable measure of justification and social value, while it is pointed out at the same time that the circumstances of the country call for a gradual and cautious application of such a policy of wage-fixing under statutory compulsion.

Chapter IV deals with "the problem of wages in relation to proposals for increasing the scope of white employment." The subject is very fully discussed under the following headings: (1) the alleged lack of openings for white youths; (2) the poor white problem, with which is associated an inquiry into the opportunities of employment as affected by the possibilities of development in agriculture; (3) the enactment of a legislative colour bar; (4) the use of the wage rate as a colour bar; (5) the substitution of Europeans for natives in Government employment; (6) the special case of the gold-mining industry; (7) the economic future of the native; and (8) the fostering of manufacturing industry under a protective tariff. This section of the report is in the main a criticism of all policies which "sought to extend the scope of employment by diverting, and in the process of diversion, reducing the funds created by production, which constitute the source of all employment." Among the policies placed in that category are "the interference with the present labour supply" of the mining industry, the employment of white labour "on an uneconomical basis," "the policy of excluding the native from industrial occupations," and "the artificial stimulation of certain occupations or industries" under the shelter of a State regulated wage or a customs tariff.

Chapter V is devoted to an analysis of the theoretical principles of wage regulation, and embodies a series of propositions designed to serve as a guide to the public authorities charged with the determination of wage minima in the Union. Such conceptions as "the living wage," "a civilized standard of life," and "the subsistence level" are examined and commented upon in the light of the experience of and the ideas current in South Africa and other countries.

The qualifying and supplementary observations made by Mr. Mills, in signing the report, deal with the following points: (1) the relation between an expanding population and the economic development of a country; (2) the respective spheres of operation of the *Industrial Conciliation Act* and the *Wage Act*; (3) native labour policy in the gold-mining industry and its bearing on the general economic development of the Union, with particular reference to the agricultural industry; (4) the economic future of the native; (5) the fostering of manufacturing industries and the promotion of agricultural production; (6) the principles of wage-regulation.

The following is a brief summary of the definite recommendations contained in this section of the Commission's report:—

(1) The Government should undertake a complete survey of the economic condition of the native people.

(2) All areas where large numbers of natives are employed should as far as practicable be proclaimed labour districts and brought under the scope of the Native Labour Regulation Act, the provisions of which serve a useful purpose.

(3) Any conditions imposed upon trade unions, such as insistence on the taking of a secret ballot, should be included among the requirements to be fulfilled before registration of a trade union is effected.

(4) The status of non-registered trade unions requires definition, and strike ballots should be made secret by law.

(5) The chairmen of apprenticeship committees should meet at intervals and endeavour to ensure a measure of co-ordination between apprenticeship rates which at present show great divergences. The Wage Board should be represented at such conferences.

(6) It is highly undesirable that parties to a dispute should be able to appeal from the machinery of the *Industrial Conciliation Act* to the Wage Board.

(7) The Minister before registering or extending an agreement under that Act should review the terms and require them to be redrafted, if necessary, in a form that satisfied his law advisers.

(8) All such agreements should be submitted to the Wage Board, as the chief co-ordinating authority on wage questions, for its comments.

(9) In the case of an industry sufficiently organized to be capable of utilizing the procedure of the *Industrial Conciliation Act*, reference to outside arbitration, including the Wage Board, should be permitted only if demanded by a majority of the employers' and employees' representatives respectively.

(10) The Minister should make a public declaration that he intends freely to use his power to direct the Wage Board to make a recommendation in the case of the lower-wage and unorganized occupations.

(11) The Wage Board should have regard to the rates of pay and conditions of employment in agriculture and in rural areas generally when considering the subject of wages in other industries.

(12) The Public Service Commission should consult the chairman of the Wage Board before making any important wage change in the terms and conditions in the Public Service. The chairman of the Wage Board, or his alternate, should be invited to attend the meetings of the Railway Conciliation Board.

(13) Every Department of State should be required to make an annual return to Parliament showing the estimated additional expenditure incurred as a result of substituting European for native labour.

(ii) *The Andrews–Lucas–Rood Report* is set out in three chapters. Chapter I headed "Wages," dealts *seriatim* with each of the terms of reference, and in effect presents a comprehensive survey, from the point of the view of the signatory commissioners, of the existing wage, labour, and industrial conditions in the Union. The gist of the observations made under each heading may be summarized as follows :—

(1) Payment in kind plays an important part in the wage economy of the Union. The range of wages is extremely wide, varying to a large extent, in the case of Europeans, according to the degree of organization of the employees. Fuller information than exists at present as to actual wages paid, particularly in the lower ranks of industry, is desirable. Agreements under the *Industrial Conciliation Act* have had the effect of raising the level of wages of those concerned. The wage conditions in the smaller centres, so far as they have been revealed by the inquiries of the Commission, are not entirely satisfactory. The rates of wages fixed under the *Wages Act* of 1918 are characterized by a great lack of uniformity and the absence of any apparent general principles ; and even these rates were evaded in many cases.

The wages of coloured workers are on a similar level to those of white workers in the same occupations. Native wages are about the same in the gold-mining industry as those paid on the Natal sugar plantations ; they are most favourable in the case of unskilled labour in the Cape Town area. The wages of Asiatics are on the same level as those of native and coloured workers.

International comparisons of wages, such as are generally made, are without value, since they do not take account of "Sundries." An attempt to compare real wages in Johannesburg and London with the inclusion of "Sundries," places the ratio at 100 to 89.

A comparison of the movement of the national income of the Union between 1917 and 1924 and the movement of wages shows that the wage-earning classes did not participate to the full in the increased national wealth which has accrued to the Union since 1917. Compared with 1910, real wages have declined in every industry except printing ; wage conditions appear to be more favourable now, as compared with the pre-war period, in Port Elizabeth, East London, Durban, Pietermaritzburg, and Bloemfontein, than in the Cape Peninsula, Kimberley, Johannesburg, and Pretoria.

(2) Differentiation of wages occurs in practice according to age, sex, experience, responsibility, and skill ; and certain conditions of service imposed under statute also have the effect of differentiating between the wages of persons engaged in similar occupations, e.g., the *Apprenticeship Act*, some agreements under the *Industrial Conciliation Act*.

(3) Wages are settled by voluntary agreement, by custom or under legislative compulsion. The employer who has to depend on individual bargaining is at a disadvantage. The tribal native who works under contract is in a favourable position in this respect, as he has access to the land. Many natives are, however, becoming detribalized and are losing this advantage. Collective bargaining is the ideal method of fixing wages, where both parties are sufficiently well-organized to be able to negotiate on equal terms. Customary wage rates are best exemplified by agricultural wages.

The statutory regulation of wages is governed by the *Wages Act*, 1918, the *Apprenticeship Act*, 1922, the *Industrial Conciliation Act*, 1924, and the *Wage Act*, 1925. The last-named Act is designed to supplement the *Industrial Conciliation Act*, and it should be used whenever the latter fails. The *Wage Act* requires to be amended in some particulars.

Co-ordination of wage determinations is desirable. The diversity of standards arising from the existence of different racial strata in the Union, together with other factors which are peculiar to South Africa, should receive the careful consideration of the Wage Board in making its recommendations.

(4) "Sundries" should be taken into account for the purpose of wage determinations. High rents are among the chief causes of the high cost of living in South Africa, and the existing system of municipal rating is one of the causes of high rentals. All improvements on land should be untaxed. Housing schemes should be encouraged by liberal State loans made for the purpose.

The value of real wages should not be allowed to fall owing to a rise in the cost of living, and every such rise should be compensated by an adjustment in money wages.

(5) The increase in the national income in recent years has been in advance of the increase in the population. The Government should exercise control over the system of raising capital for investment in the Union, and should borrow locally, if possible, for public purposes. In this way the drain on the national income through interest charges should be reduced.

There is considerable land hunger in South Africa. Access to the land should be made easier and the power of landlords to exact toll from land-users should be curtailed. A scheme for the insurance of farm crops should be established; better marketing facilities for agricultural products should be developed; and a system of loans to producers against the sale of their crops should be introduced. Overtrading and excessive granting of credit are prevailing evils in South Africa, which tend to check economic development.

(6) Differences in wage standards between town and country areas are among the causes of the drift of population to the large urban centres.

(7) "Sweated" wages are to the detriment of the whole community, and lead to inefficiency of management. The public regulation of wages, when it results in raising the lower level of wages, will have a beneficial effect on production. The wage earners should not be called upon to bear the whole burden of carrying on inefficient industries.

(8) The greatest scope for the youth of the country lies in the development of agriculture and the derivative industries. Everything should be done to encourage the development of agriculture and the better utilization of the land, and suggestions are made with that end in view. The juvenile placement organization is serving its purpose admirably and should be developed.

Chapter II discusses the economic relationship between Europeans and natives in South Africa, and traverses in greater detail much of the ground covered in the previous chapter. The importance of the native in the South African economic structure is emphasized, and the development of industry predominantly on the basis of low-paid non-European labour is deprecated. The importation of such labour from outside the Union is strongly condemned, on the ground that it operates to depress the position of the Union native with unfavourable reactions on the standard of living of the white and coloured workers. It is urged that the penal clauses in native labour contract, under the *Masters and Servants Acts* and the *Native Labour Regulation Act*, should gradually be eliminated. It is suggested that the recruitment of native labour for mining and agriculture, which is at present entirely in private hands, should be supplemented by Government labour bureaux, so that natives might go out to work in the greater certainty of reaching congenial employment. Stress is laid upon the necessity for giving the most sympathetic consideration to the grievances of native workers.

Chapter III is devoted to an inquiry into the effect of different wage and labour policies in relation to Union conditions. Reference is made to the traditional European prejudice in South Africa against manual labour, and the emergence of the "poor white" class. The effects of the migration of the latter to the towns are discussed, and attention is drawn to the widespread change in the general outlook on the "poor white" problem. It is declared that the Union is faced with a choice between two alternative labour policies—the importation of increasing numbers of low-paid non-European labourers and the organization of industrial development on the basis of the larger employment of well-paid white workers. The evidence is interpreted as showing that native labour is in reality expensive, and on the other hand that the economical organization of industry with a much larger proportion of better paid whites than formerly is practicable. The encouragement of European immigration to strengthen European civilization in South Africa is advocated. At the same time, natives who have found their way into European industry should be given full scope, and it is mainly when there is a shortage of native labour that advantage should be taken of the fact to adapt industry to the employment of civilized workers. Further importation of native labourers should be discouraged and ultimately stopped, to the benefit alike of the white workers, the coloured people, and the available native labourers, who would be able to improve their economic position.

The principal recommendations of this section of the report may be summarized as follows:—

(1) Agreements of industrial councils should be submitted to the Wage Board before legal effect is given to them.

(2) The Minister's discretion as to the enforcement of recommendations of the Wage Board should be abolished.

(3) The clause relating to " a civilized standard of life " (sub-section 3 of section 3) in the *Wage Act* should be repealed.

(4) Co-operation should be arranged between the Wage Board and the Public Service Commission and the Railway Conciliation Board in wage questions.

(5) A thorough survey should be undertaken by the Government of the wages, food, housing, and other conditions of employees in agriculture.

(6) Buildings should be freed from municipal rates and housing schemes should be rapidly developed.

(7) The share of the landowner, as distinct from the land-user, in the national income should be restricted to the smallest possible amount.

(8) The possibility of easier and cheaper transfer of land should be investigated.

(9) Farmers of good character whose tenure is precarious should be assisted financially, under proper safeguards. A condition in giving such assistance should be that the person assisted bear his full share in the actual work on the land.

(10) The number of agricultural training schools should be increased as rapidly as possible. In signing the second report, Mr. Andrews makes a reservation based on the thesis that the proposals suggested are only in the nature of expedients and that a radical reorganization of society is necessary to effect a permanent improvement in the conditions of the poorer classes.

4. **Workmen's Wages Protection.**—The *Workmen's Wages Protection Act* (No. 15 of 1914) was passed " to make better provision for securing the payment of workmen's wages." It provides generally that wages due to a workman shall form a first charge upon money payable to a contractor by his principal and that assignments and attachments are void as against the claims of workmen.

Other provisions of the Act and particulars of the procedure to be adopted under it are summarized in previous issues of this *Year Book.*

5. **Workmen's Compensation Act.**—An Act (No. 25) was passed by Parliament in 1914, consolidating, amending, and extending throughout the Union the law providing for compensation for injuries suffered by workmen in the course of their employment, or for death resulting from such injuries. By Act No. 13 of 1917 an extension of the provisions of the Workmen's Compensation Act was effected so as to provide for compensation to workmen or their dependents who have contracted, or have died as the result of—

(*a*) cyanide rash,
(*b*) lead poisoning or its *sequelae*,
(*c*) mercury poisoning or its *sequelae*,
while handling cyanide or lead, or using mercury in the course of their employment.

A summary of the provisions of Act No. 25 of 1914 was given in the fifth and previous issues of this *Year Book.*

6. **Factories Act.**—The Department of Labour has taken over the administration of the *Factories Act, No.* 28 *of* 1918, which contains the following provisions :—

(i) *Administration.*—The appointment of a chief inspector, with inspectors under him for various industrial districts. Power of entry is given and full authority to inspect any factory or part thereof.

(ii) *Registration of Factories.*—All factories have to be registered within a period of six months from the date of coming into force of the Act. Registration may be obtained by filling in a prescribed form. An appeal lies to the Minister of Labour against any decision of an inspector in regard to registration.

(iii) *Employment in Factories.*—A record of employees must be kept. The occupier has also to keep affixed in a conspicuous place certain notices, giving the name and address of the inspector, the working hours of the factory, and an abstract of the Act and regulations.

No worker over sixteen years of age may work for more than (*a*) 50 hours a week; or (*b*) 9½ hours a day; or (*c*) 5 hours continuously. No person under sixteen years of age may work for more than (*a*) 45 hours a week; or (*b*) 8 hours a day; or (*c*) 4½ hours continuously (5 hours on half-holidays). All the foregoing hours are exclusive of meal times. The restrictions do not include persons employed in starting motive power in the factory, making preparations for work, cleaning up, or to unskilled work carried on in the open air. A special exemption may be given by the Minister in the case of a factory where the supply of raw material is intermittent, or subject to seasonal variation, or where raw material is liable to deterioration if untreated, or where continuous processes or the exigencies of the business render special hours necessary during certain times or seasons. Women may not be employed between 6 p.m. and 7 a.m., or boys under sixteen years of age between 6 p.m. and 6 a.m., subject to certain exemptions, which may be granted by the Minister, but which may not authorize work between 9 p.m. and 5 a.m.

Overtime is allowed, but for women and for boys under sixteen years of age no overtime may be worked for more than three hours a day on three consecutive days of the

week. In the case of women over sixteen years of age, overtime may not be worked on more than sixty days in a year, and in the case of all children under sixteen years of age on more than twenty days in a year Overtime in these cases is not allowed on holidays or half-holidays, except by permission of the inspector, and when the employees are willing. An overtime register must be kept in every factory.

No female may work in a factory during the four weeks preceding or the eight weeks following her confinement. Provision exists for the payment by Government of an allowance up to £1 per week during the twelve weeks above specified, if the female is solely dependent upon the wages she ordinarily earns, and where the father is unable to support the child.

Children under twelve years of age may not be employed in any factory. Subject to the education law children over twelve years and under fourteen years of age may only be employed when authorized by the inspector. An annual return of such authorizations is required to be rendered to Parliament. Children under sixteen years of age may not be employed in certain specified trades, and may not be employed in any factory without a certificate of physical fitness in prescribed form.

(iv) *Out-Work.*—Where work is given out, a record has to be kept for the guidance of the inspector. No such work may be sub-let, though it may be done by other members of the out-worker's family. The Act provides for a label, which may be attached by the inspector, to be affixed to work given out in connexion with the clothing and textile industries, where the work is performed under satisfactory and sanitary conditions.

(v) *Noxious and Dangerous Occupations.*—Noxious and dangerous occupations may be so declared by proclamation.

(vi) *Holidays.*—Sundays and statutory public holidays are specified. Other days in the year may be substituted. No women or boys under sixteen years of age may work on Saturday afternoons, except when a half-holiday is provided for on some other day of the working week.

(vii) *General Working Conditions.*—Provision is made for proper means of egress in case of fire; for proper sanitation, ventilation, lighting, drinking-water, and such matters.

The following regulations have been framed under the Act:—

Chapter I.—General (Government Notice No. 559/19, *Union Government Gazette*, 2nd May, 1919; amended by Government Notice No. 246/22, *Union Government Gazette*, 10th February, 1922).

Chapter II.—Handling of Hides and Skins and the Sorting of Wool and Mohair (Government Notice No. 2099/20, *Union Government Gazette*, 19th November, 1920).

Chapter III.—Bakehouses and Factories where Foodstuffs are Manufactured, Prepared, or Handled (Government Notice No. 2247/20, *Union Government Gazette*, 17th December, 1920).

Chapter IV.—Transmission Machinery in use in any Factory (Government Notice No. 273/21, *Union Government Gazette*, 18th February, 1921).

Chapter V.—Woodworking Machinery in any Factory (Government Notice No. 1384/24, *Union Government Gazette*, 22nd August, 1924).

An annual report is issued by the Department of Labour for each calendar year, containing full information as to the working of the Act.

Statistics regarding the factories in the Union will be found in the chapter on manufacturing industries (Chapter XVII).

7. **International Labour Organization.**—An account of the International Labour Organization established under the Treaty of Versailles will be found in the sixth and previous issues of this *Year Book*. These also contain particulars of the first four General Conferences held under the auspices of the International Labour Office each year since 1919, the Union being represented at all except the second. The fifth Conference met at Geneva on the 22nd October, 1923, and the sixth on the 16th June, 1924, the Union being again represented at both. Consideration was confined to the question of the general principles which should govern the organization of systems of factory inspection so as to secure the enforcement of laws and regulations for the protection of workers. A recommendation on the subject was adopted.

The following International Labour Conventions have been ratified by the Union Government—

(*a*) Convention concerning the employment of women during the night; and
(*b*) Convention concerning unemployment.

Under the unemployment convention the several labour exchanges in the Union will co-operate with local voluntary advisory committees, the appointment of such committees being specially provided for in the Convention. The exchanges have in the past co-operated with public bodies, and the appointment of committees of the nature referred to aims to bring the position into line with Convention requirements.

The seventh session of the International Labour Conference was held at Geneva, from May 19th to June 10th, 1925. The Union Government was represented by Professor F. Clarke and Mr. W. Freestone, while the employers' delegate was Dr. A. J. Orenstein,

C.M.G.; Mr. H. W. Sampson, O.B.E., M.L.A., represented the employees' organization. The following draft conventions and recommendations were adopted by the Conference :—

Draft Conventions.

1. Concerning workmen's compensation for accidents.
2. Concerning workmen's compensation for occupational diseases.
3. Concerning equality of treatment for national and foreign workers as regards workmen's compensation for accidents.
4. Concerning night work in bakeries.

Recommendations.

1. Concerning the minimum scale of workmen's compensation.
2. Concerning jurisdiction in disputes on workmen's compensation.
3. Concerning workmen's compensation for occupational diseases.
4. Concerning equality of treatment for national and foreign workers as regards workmen's compensation for accidents.

The general question of social insurance was also considered by the Conference.

The report submitted by the Union Government delegates has been published (U.G. 43–25).

§ 7. Wages and Hours of Labour (European Workers).

1. **Introductory.**—From the end of the year 1919 the Statistics Office has undertaken the collection of statistics of wages, hours of labour, trade unionism, and cognate matters in the Union on a regular and comprehensive plan. Prior to that year no systematic or complete record had been maintained. The task of collecting and compiling statistical data over a long series of past years was one of magnitude, particularly as such data could not be obtained under statutory authority but only by enlisting the assistance and co-operation of representative employers of labour and others. With the application of the *Statistics Act* it became possible to put the annual collection of statistics of wages and other aspects of industrialism on a satisfactory and sure basis. The methods followed in inaugurating the system and in obtaining and computing results for back years are set out in detail in the reports on wages, etc., published in the "Social Statistics" series (S.P. 23, 1921, and S.P. 35, 1922) issued by the Statistics Office.

2. **Scope of Inquiry.**—The following groups of occupation are utilized in the computation of average wages and index numbers :—

I.—Mining.
II.—Engineering and Metal Working.
III.—Building.
IV.—Printing, Bookbinding, etc.
V.—General Manufacturing.
VI.—Transport and Communication (Railways, Harbours, Tramways, and Posts).
VII.—Trading.
VIII.—Clerical (Government, Municipal, and Other).
IX.—Domestic (Hotels, etc.).
X.—Miscellaneous (including Police).

Wage rates payable to Europeans (male and female) for full-time work, in a range of specific occupations under these ten groups of industry, are obtained in respect of each of the nine principal industrial centres of the Union, and in the case of occupations in manufacturing industry in respect of certain areas outside those centres. Wage data of coloured persons and natives were not called for at the initial investigations, but were ascertained for the first time in the year 1921.

3. **Methods of Collection and Computation.**—A statement on the methods of collection and computation adopted in the wage statistics inquiry was given in the sixth issue of this *Year Book*. Substantially the procedure is still the same, except that from the year 1923 the date for which ruling wage-rates are collected was changed from the 31st December to the 30th September.

4. **Variations in Nominal and Effective Wages.**—The term *nominal wage* is used to signify the actual amount of money which would be received in return for labour for the full number of hours per week, whether full time is actually worked or not. By *effective wage* is meant a wage equivalent in purchasing power, i.e. purchasing power according to the definite regimen utilized for the calculation of price indexes under the *Statistics Act*. It should be noted that in calculating effective wages the factor of unemployment has not been taken into account for the reason that complete statistics of unemployment have not up to the present been obtainable in the Union. Nominal wages are specified in the tables below from 1895, effective wages from 1910.

The following tables (i) to (vii) give particulars and index numbers of nominal and effective wages in ten groups of occupation in nine industrial areas, for a series of years up to and including the year 1924. The figures from 1919 to 1922 relate to the 31st December, and those for the years 1923 and 1924 to the 30th September :—

(i) AVERAGES OF NOMINAL WEEKLY WAGE RATES—EUROPEAN ADULT MALE WORKERS IN NINE TOWNS IN THE UNION FOR ALL CLASSES OF OCCUPATION, 1895 TO 1924.

NOTE.—" Nominal Wages " represent the actual amount of money received in return for labour, working recognized hours at full time.

(*a*) AVERAGE WEEKLY WAGE, 1895 TO 1924.

Year.	Cape Peninsula.	Port Elizabeth	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Union.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1895....	64 9	61 3	65 1	102 4	68 5	74 0	103 11	107 10	80 7	88 4
1900....	66 6	64 5	66 8	104 6	70 0	77 3	100 11	108 5	82 3	89 6
1905....	72 0	69 2	68 4	109 7	73 3	81 8	104 1	113 9	85 6	95 2
1910....	75 4	77 2	71 1	107 5	74 7	79 11	106 7	111 10	88 5	95 1
1915....	83 2	79 9	78 0	109 3	82 3	86 7	114 2	114 0	96 4	99 11
1920....	146 1	143 6	139 3	163 7	143 5	158 4	174 10	175 8	154 10	162 5
1921.....	131 8	126 4	126 6	154 11	130 7	142 8	159 2	172 7	140 0	150 1
1922....	116 0	114 5	114 3	131 10	119 0	129 8	141 5	140 1	128 7	131 7
1923....	116 5	115 2	113 3	129 5	119 10	128 11	142 6	141 9	130 2	132 5
1924...	115 7	114 8	113 2	128 10	119 2	130 7	141 4	141 10	129 2	132 3

(*b*) INDEX FIGURES.

(Basis—Union Average, 1910=1000.)

1895....	671	635	675	1006	709	767	1077	1117	835	929
1900....	689	667	691	1083	725	801	1046	1124	852	941
1905....	746	717	709	1136	759	847	1079	1179	886	1001
1910....	781	748	737	1113	773	829	1105	1159	917	1000
1915....	862	827	808	1133	852	897	1184	1182	998	1051
1920....	1514	1488	1444	1695	1487	1641	1812	1821	1605	1708
1921...	1365	1310	1311	1606	1353	1478	1650	1789	1451	1579
1922...	1221	1203	1202	1386	1251	1364	1488	1474	1352	1384
1923...	1224	1212	1191	1361	1261	1356	1499	1491	1369	1393
1924...	1215	1206	1190	1355	1253	1373	1486	1492	1359	1391

(ii) AVERAGES OF EFFECTIVE WEEKLY WAGE RATES—EUROPEAN ADULT MALE WORKERS IN NINE TOWNS IN THE UNION FOR ALL CLASSES OF OCCUPATION, 1910 TO 1924.

NOTE.—" Effective Wages " represent the effective purchasing power of " nominal wages " calculated in association with the variations of price indexes.

(*a*) AVERAGE EFFECTIVE WEEKLY WAGE, 1910 TO 1924.

(Standard basis—Food, Fuel, Light, and Rent.)

Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Union.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910....	91 1	79 4	81 11	122 6	88 6	85 7	92 11	102 8	82 10	95 1
1915....	82 3	76 10	76 7	106 11	85 7	83 0	88 11	95 10	80 5	88 6
1920....	91 8	88 8	85 10	101 5	90 10	91 1	97 10	102 11	91 9	96 6
1921....	106 11	103 3	104 7	134 5	103 9	101 4	105 5	124 1	105 8	111 4
1922...	96 6	102 4	99 11	110 8	103 4	96 11	95 5	102 11	97 10	100 6
1923...	97 10	105 1	94 3	113 4	101 9	95 3	97 2	105 11	96 4	102 0
1924...	93 0	95 8	92 0	110 8	100 10	95 6	98 0	106 1	94 6	100 10

(*b*) INDEX FIGURES.

(Basis—Union Average, 1910=1000.)

Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Union.
1910....	945	822	850	1270	917	887	963	1064	858	1000
1915....	834	797	794	1109	887	861	922	994	833	931
1920....	950	919	889	1051	941	944	1013	1066	951	1015
1921....	1108	1070	1083	1393	1075	1050	1093	1286	1095	1171
1922....	1016	1076	1051	1164	1087	1019	1004	1083	1029	1057
1923....	1029	1106	992	1192	1070	1001	1022	1114	1013	1073
1924....	978	1007	967	1164	1060	1004	1031	1116	994	1060

(*c*) AVERAGE EFFECTIVE WEEKLY WAGE, 1920–24.

(Complete basis of Prices—Food, Fuel, Light and Rent, Clothing, Hardware, etc.)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1920...	79 8	77 6	75 4	83 9	80 4	80 5	80 6	85 5	76 4	81 8
1921...	95 8	91 11	93 1	110 8	95 3	93 8	92 11	108 7	91 3	98 6
1922...	89 4	91 11	90 10	96 11	95 11	91 8	87 2	93 4	88 2	91 10
1923...	89 11	93 5	87 3	97 3	95 1	90 3	88 3	95 2	87 7	92 8
1924...	87 6	88 9	86 5	96 5	94 11	91 4	89 0	95 11	86 10	92 7

(*d*) INDEX FIGURES.

(Basis—Union Average, 1910 = 1000.)

1920...	826	803	781	868	833	834	834	885	791	859
1921...	991	953	965	1147	987	970	963	1125	946	1036
1922...	940	966	955	1019	1009	964	917	982	927	966
1923...	946	983	918	1023	1000	949	928	1001	921	975
1924...	920	933	909	1014	998	961	936	1009	914	973

NOTE.—Rent statistics for July, 1923, have been utilized in calculating the cost of living figures for September, 1923, on which the 1923 figures given in the foregoing tables are based.

CLASSES OF OCCUPATION.

I.—Mining.
II.—Engineering and Metal Working.
III.—Building.
IV.—Printing, Bookbinding, etc.
V.—General Manufacturing.
VI.—Transport and Communication (Railways, Harbours, Tramways, and Posts).
VII.—Trading.
VIII.—Clerical (Government, Municipal, and other).
IX.—Domestic (Hotels, etc.).
X.—Miscellaneous (including Police).

(iii) **AVERAGES OF NOMINAL WEEKLY WAGE RATES—EUROPEAN ADULT MALE WORKERS IN EACH OF TEN CLASSES OF OCCUPATION IN THE UNION, 1895 TO 1924.**

(*a*) AVERAGE WEEKLY WAGE, 1895 TO 1924.

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.*	X.	All Groups.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1895.....	112 6	101 9	92 10	83 10	76 7	—	73 6	79 6	51 8	73 1	88 4
1900.....	113 6	100 8	94 6	90 0	78 8	—	75 6	79 11	55 4	74 5	89 6
1905.....	119 10	102 2	97 4	96 8	81 0	—	76 8	92 8	57 3	81 1	95 2
1910.....	118 4	103 9	97 0	96 8	81 11	80 11	83 0	100 0	61 7	80 10	95 1
1915.....	116 4	105 10	100 7	99 9	89 1	90 8	90 4	107 4	62 7	85 9	99 11
1920.....	179 1	168 6	164 9	177 5	141 8	160 1	144 5	171 4	118 6	147 1	162 5
1921.....	189 11	168 9	156 4	160 11	129 2	126 8	141 11	142 9	110 4	131 0	150 1
1922.....	136 0	125 1	135 3	153 5	118 3	124 0	138 4	139 9	104 5	124 0	131 7
1923.....	139 10	123 9	135 1	153 5	116 3	125 0	135 1	142 11	106 7	125 2	132 5
1924.....	141 8	123 9	135 1	144 2	115 3	126 11	132 8	143 6	102 5	120 11	132 3

* Estimated value of board and lodging, and in some cases board only, included from year 1920.

(*b*) INDEX FIGURES.

(Basis—Union Average, 1910=1000 in each case.)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.*	X.	All Groups.
1895.....	951	981	958	869	935	—	885	795	839	903	929
1900.....	959	970	975	931	960	—	910	799	899	920	941
1905.....	1013	985	1004	1000	989	—	924	926	930	1002	1001
1910.....	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
1915.....	984	1020	1037	1032	1088	1120	1089	1073	1017	1060	1051
1920.....	1513	1624	1698	1835	1729	1978	1740	1712	1925	1819	1708
1921.....	1605	1627	1612	1664	1577	1565	1710	1427	1792	1620	1579
1922.....	1150	1205	1395	1586	1444	1532	1667	1397	1684	1534	1384
1923.....	1182	1193	1393	1586	1419	1545	1627	1429	1731	1548	1393
1924.....	1198	1193	1393	1491	1406	1568	1599	1435	1664	1495	1391

(iv) AVERAGES OF EFFECTIVE WEEKLY WAGE RATES—EUROPEAN ADULT MALE WORKERS IN EACH OF TEN CLASSES OF OCCUPATION IN THE UNION, 1910 TO 1924.

(*a*) AVERAGE EFFECTIVE WEEKLY WAGE, 1910 TO 1924.

(Standard Basis—Food, Fuel, Light, and Rent.)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.*	X.	All Groups.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910.....	118 4	103 9	97 0	96 8	81 11	80 11	83 0	100 0	61 7	80 10	95 1
1915.....	103 0	93 9	89 1	88 4	78 11	80 3	80 0	95 1	55 5	75 11	88 6
1920.....	106 5	100 2	97 11	105 6	84 2	95 2	85 10	101 9	70 5	87 5	96 6
1921.....	140 11	125 2	116 0	119 5	95 11	94 0	105 4	105 11	81 11	97 3	111 4
1922.....	103 11	95 6	103 4	117 2	90 4	94 9	105 8	106 9	79 10	94 9	100 6
1923.....	107 9	95 4	104 1	118 2	89 7	96 4	104 1	110 1	82 1	96 5	102 0
1924.....	108 0	94 4	102 11	109 10	87 10	96 9	101 2	109 5	78 1	92 2	100 10

(*b*) INDEX FIGURES.

(Basis—Union Average, 1910=1000 in each case.)

1910.....	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
1915.....	872	903	919	914	964	992	965	950	901	939	931
1920.....	899	965	1009	1090	1027	1175	1034	1017	1144	1081	1015
1921.....	1191	1207	1196	1234	1170	1161	1269	1059	1329	1202	1171
1922.....	879	921	1066	1212	1103	1170	1273	1067	1296	1172	1057
1923.....	911	919	1073	1222	1093	1190	1253	1101	1334	1193	1073
1924.....	913	909	1062	1136	1072	1195	1219	1094	1268	1139	1060

(*c*) AVERAGE EFFECTIVE WEEKLY WAGE, 1920 TO 1924.

(Complete cost of living basis—Food, Fuel, Light, Rent, Clothing, Hardware, etc.)

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1920....	90 0	84 9	82 10	89 3	71 3	80 6	72 7	86 1	59 7	73 11	81 8
1921....	124 7	110 9	102 7	105 7	84 9	83 2	93 2	93 8	72 5	86 0	98 6
1922....	94 11	87 3	94 5	107 0	82 6	86 6	96 6	97 7	72 11	86 6	91 10
1923....	97 10	86 8	94 6	107 4	81 4	87 6	94 6	100 0	74 7	87 7	92 8
1924....	99 2	86 8	94 6	100 10	80 7	88 10	92 10	100 5	71 8	84 8	92 7

(*d*) INDEX FIGURES.

(Basis—Union Average, 1910=1000 in each case.)

1920....	761	816	854	923	869	994	875	861	968	915	859
1921....	1053	1068	1058	1092	1035	1027	1122	936	1176	1063	1036
1922....	803	841	973	1107	1008	1069	1163	975	1184	1070	966
1923....	827	835	975	1110	993	1081	1139	1000	1211	1083	975
1924....	838	835	975	1043	984	1097	1119	1004	1164	1046	973

* Estimated value of board and lodging, and in some cases board only, included from year 1920.

NOTE.—Rent statistics for July, 1923, have been utilized in calculating the cost of living figures for September, 1923, on which the 1923 figures given in the foregoing tables are based.

(v) EFFECTIVE WEEKLY WAGE RATES IN VALUES OF £1—EUROPEAN ADULT MALE WORKERS IN NINE TOWNS FOR ALL CLASSES OF OCCUPATION, 1910 TO 1924.

(AVERAGE FOR UNION, 1910=20s.)

Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Union.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910..	18 11	16 5	17 0	25 5	18 4	17 9	19 3	21 3	17 2	**20 0**
1915..	16 8	15 11	15 11	22 2	17 9	17 3	18 5	19 11	16 8	18 7
1920..	19 0	18 5	17 9	21 0	18 10	18 11	20 3	21 4	19 0	20 4
1921..	22 2	21 5	21 8	27 10	21 6	21 0	21 10	25 9	21 11	23 5
1922..	20 4	21 6	21 0	23 3	21 9	20 5	20 1	21 8	20 7	21 2
1923..	20 7	22 1	19 10	23 10	21 5	**20** 0	20 5	22 3	20 3	21 6
1924..	19 7	20 2	19 4	23 3	21 2	20 1	20 7	22 4	19 11	21 2

(vi) EFFECTIVE WEEKLY WAGE RATES IN VALUES OF £1—EUROPEAN ADULT MALE WORKERS IN EACH OF TEN CLASSES OF OCCUPATION IN THE UNION, 1910 TO 1924.

(1910=20s. in each case)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.*	X.	All Groups.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910.....	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**	**20 0**
1915.....	17 5	18 1	18 5	18 3	19 3	19 10	19 4	19 0	18 0	18 9	18 7
1920.....	18 0	19 4	20 2	21 10	20 6	23 6	20 8	20 4	22 11	21 7	20 4
1921.....	23 10	24 2	23 11	24 8	23 5	23 3	25 5	21 2	26 7	24 0	23 5
1922.....	17 7	18 5	21 4	24 3	22 1	23 5	25 6	21 4	25 11	23 5	21 2
1923.....	18 3	18 5	21 6	24 5	21 10	23 10	25 1	22 0	26 8	23 10	21 6
1924.....	18 3	18 2	21 3	22 9	21 5	23 11	24 5	21 11	25 4	22 9	21 2

(vii) INDEX NUMBERS GIVING COMPARISONS IN NOMINAL WAGE RATES—EUROPEAN ADULT MALE WORKERS IN TEN CLASSES OF OCCUPATION IN THE UNION, 1895 TO 1924.

(UNION AVERAGE=1000.)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.*	X.	All Groups.
1895....	1274	1151	1051	948	866	—	832	900	585	827	1000
1900....	1268	1125	1056	1006	879	—	844	893	619	832	1000
1905....	1260	1074	1023	1016	851	—	806	974	602	852	1000
1910....	1244	1091	1020	1017	862	851	873	1052	648	851	1000
1915....	1165	1059	1007	998	892	907	904	1074	626	858	1000
1920....	1103	1038	1014	1093	872	986	889	1055	730	906	1000
1921....	1265	1124	1042	1072	861	844	946	951	735	873	1000
1922....	1034	950	1028	1166	899	942	1051	1062	794	942	1000
1923....	1056	935	1020	1158	878	944	1020	1079	805	945	1000
1924....	1071	936	1021	1090	871	959	1003	1085	774	914	1000

* Estimated value of board and lodging, and in some cases board only, included from year 1920.

5. **Standard or Average Wages, 1924.**—The following table gives particulars of standard or average wages paid to European adult male workers in certain classes of occupation in the Union as at the 30th September, 1924:—

STANDARD OR AVERAGE WAGE RATES—EUROPEAN ADULT MALE WORKERS IN CERTAIN INDUSTRIAL AREAS IN THE UNION, 30th SEPTEMBER, 1924.

(In Group I.—Mining—the rates given are those which ruled at the 30th June, 1924.)

In Group VI—Transport and Communication—the rates given in respect of certain occupations in the Railways and Harbours Administration are those which ruled at the 31st December, 1924.)

GROUP I.—MINING.

(Average pay per shift, including allowances.)

Occupation.	Gold Mining (Witwatersrand).	Coal Mining (Transvaal).	Diamond Mining (Kimberley).	Occupation.	Gold Mining (Witwatersrand).	Coal Mining (Transvaal).	Diamond Mining (Kimberley).
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
Amalgamators*.....	21 2	—	—	Miners—Shaft Sinking—			
Banksmen*.....	16 1	18 4	18 0	Contract.....	56 8	—	—
Engine-drivers—				Day's Pay.....	43 5	30 0	—
Winding (electric)*.	22 10	24 0	—	Miners—Reclaiming-			
Winding (electric)..	24 3	—	—	Contract.....	23 1	—	—
Winding (other)*...	22 9	24 2	23 3	Day's Pay.....	20 11	—	—
Winches (electric)..	15 3	—	—				
Winches (other)....	15 6	—	—	Miners—Various—			
Fitters*.....	21 3	22 2	—	Contract	27 11	28 11	—
Fitters.....	23 5	22 0	22 9	Day's Pay.....	20 5	23 8	—
Miners—Machine Stoping—				Miners, Coal.....	—	23 8	—
Contract.....	29 9	—	—	Miners, Diamond...	—	—	23 6
Day's Pay.....	21 4	—	—	Onsetters and Skipmen.....	17 3	16 9	—
Miners—Hand Stoping—				Pipemen.....	20 10	18 6	17 6
Contract.....	26 10	—	—	Platelayers.....	20 10	18 6	19 2
Day's Pay.....	20 3	—	—	Pumpmen.....	20 0	22 2	20 0
Miners—Machine Developing—				Shift Bosses†.....	914 7	827 5	1,100 0
Contract.....	38 11	—	—	Timbermen—			
Day's Pay.....	20 4	—	—	Shaft.....	20 3	—	23 9
Miners — Hand Developing—				Stoping.....	23 6	—	—
Contract.....	27 5	—	—	Trammers.....	17 9	19 3	—
Day's Pay.....	20 0	—	—				

* Surface hands; others underground. Working hours per week: underground occupations on Witwatersrand gold mines, 48½ bank to bank; others, 48.

† Per mensem.

NOTE.—The above rates of pay do not include the bonuses paid from January to July, 1924, inclusive, in respect of the premium on gold.

GROUP II.—ENGINEERING AND METAL WORKING (PER DAY).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Blacksmiths.... Boilermakers... Brass Finishers Coppersmiths.. Fitters..... Moulders..... Patternmakers. Turners..... Electricians*...	20 0	20 8	20 0	20 0	20 0	22 0	23 6†	20 0†	22 4†

Working hours per week: * 44 and 48. † Municipal employ, 44; others 48.

GROUP III.—BUILDING (PER HOUR).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	(*b*)	(*b*)		(*a*)	(*c*)				
Bricklayers.....	2 9	2 9	2 8	2 9	2 10	3 1	3 4	3 4	3 3
Carpenters.....	2 9	2 9	2 8	2 9	2 10	3 1	3 4	3 4	3 3
Masons.....	2 9	2 9	2 8	2 9	2 10	3 1	3 4	3 4	3 3
Painters (including Glaziers, Paperhangers, and Sign-writers).....	1 10	2 3½	2 2½	1 10½	2 6	2 8	3 2	3 2	2 10
Plasterers.....	2 9	2 9	2 8	2 9	2 10	3 1	3 4	3 4	3 3
Plumbers.....	2 9	2 9	2 8	2 9	2 10	3 1	3 4	3 4	3 3

Working hours per week: (*a*) 48. (*b*) Municipal employ, 48. (*c*) Municipal employ, 44 and 48; others, 44.

GROUP IV.—PRINTING, BOOKBINDING, ETC. (PER WEEK).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Bookbinders and Rulers.. Lithographers.. Compositors....	122 6	122 6	122 6	132 6	122 6	142 3	152 6	152 6	142 6
Typesetting Machine Operators (day).....	134 9	134 9	134 9	145 9	134 9	156 6	167 9	167 9	156 9
Typesetting Machine Operators (night)...	148 3	148 3	148 3	160 3	148 3	172 0	184 6	184 6	172 6
Machinists..... Stereotypers....	122 6	122 6	122 6	132 6	122 6	142 3	152 6	152 6	142 6

Working hours per week: Typesetting Machine Operators (night) 40 hours; (day) 43 hours; Other occupations (night) 40 hours; (day) 46 hours.

GROUP V.—GENERAL MANUFACTURING (PER WEEK).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
* Certain occupations in industries given below (combined average wage).....	91 9	97 8	92 10	101 8	118 10	124 2	121 6	132 4	107 5

* Baking, boot and shoe making, brewing, coach and wagon building, furniture manufacturing, leather working, tailoring, and woodworking.
Working hours per week: Generally 44 to 50.

GROUP VI.—TRANSPORT AND COMMUNICATION.

(*a*) RAILWAYS AND HARBOURS.

Occupation.	Class.	Rate of Pay per Diem.		
		First Year.	Increase.	Maximum.
		s. d.	d.	s. d.
*Railways (Running Staff)**—				
Driver	Special	—	—	19 9
„	I	—	—	19 0
„	II	16 6	6	18 0
„	III	15 0	6	16 0
Passed Fireman (if passed for position of Driver)	—	—	—	13 9
Fireman	I	11 0	6	12 6
„	II	9 6	6	10 6
Guard or Ticket Examiner	Special	—	—	15 6
„ „ „	I	13 6	6	15 0
„ „ „	II	12 0	6	13 0
„ „ „	III	10 0	6	11 6
Railways and Harbours (Other)†—				
Checker	I	12 6	6	15 0
„	II	10 0	6	12 0
Driver (Crane)	Special	15 6	6	16 0
„ („)	I	12 0	6	15 0
„ („)	II	9 6	6	11 6
Driver (Stationary Engine)	I	14 0	6	17 0
„ („ „)	II	10 6	6	13 6
„ („ „)	III	9 0	6	10 0
Driver (Steam Trolley and Traction Engine)	—	11 0	6	16 6
Fireman (Stationary Engine)	—	8 6	6	11 6
Shunter (Leading, in charge of engine)	—	12 6	6	14 0
Shunter	I	11 6	6	12 6
„	II	8 6	6	11 0
Signalman (according to classification of cabin)	Special	15 6	6	18 6
Signalman	I	14 0	6	15 0
„	II	12 6	6	13 6
„	III	10 0	6	12 0

* Plus local allowance in areas where payable, bonus time allowance for punctual running, and allowance for "booking on and off."
† Plus local allowance in areas where payable.

(*b*) TRAMWAYS.

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.†	Pretoria.	Johannesburg.	Bloemfontein.*
	p.h.	p.h.	p.h.	p.h.	p.h.	p.d.	p.h.	p.h.	p.h.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Conductors and Motormen—									
1st Year	1 5	1 3 to 1 4	1 6 to 1 9		1 9	15 3 to 17 7	2 2¾	2 4⅞	1 7 to 1 8
2nd Year	1 6¾	1 5½			1 10½	17 7	2 4½	2 5⅞	1 9 to 1 10
3rd Year	1 8½	1 6½	2 0	1 10½	1 11½	18 4		2 6⅞	1 11 to 2 0
4th Year	1 10½	1 8½			2 0¾	19 1	2 6½	2 8⅜	2 0
5th Year	—	1 9¾							
6th Year	1 11½								
Working hours per week	48	48	56	56	48	48	48	48	48

* Motormen only. Conductors: 1s. p.h., rising by 1d. every six months to 1s. 5d. p.h
† Special rate 20s. p.d.

GROUP VII.—TRADING.

Occupation.	Cape Peninsula. p.w.	Port Elizabeth. p.w.	East London. p.w.	Kimberley. p.w.	Pietermaritzburg. p.w.	Durban. p.w.	Pretoria. p.w.	Witwatersrand. p.w.	Bloemfontein. p.w.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Shop assistants or salesmen in classes of occupation given below*.....	121 5	110 2	109 3	122 7	120 1	128 11	136 1	150 4	123 11

GROUP VIII.—CLERICAL.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Clerks†.....	126 7	127 10	121 11	154 10	130 7	139 10	152 11	158 6	143 10

GROUP IX.—DOMESTIC (HOTELS, ETC.).

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cooks, Barmen, and Hotel Porters‡.....	97 5	88 8	90 2	95 5	98 9	93 10	109 7	112 2	106 7

GROUP X.—MISCELLANEOUS.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Sanitary Inspectors.....	138 2	159 3	134 8	170 9	131 8	175 0	170 7	205 3	162 0
Farriers.....	64 7	60 0	49 0	87 8	114 9	125 1	102 2	102 10	67 6
Hairdressers....	99 11	93 0	87 7	92 4	109 7	131 4	115 9	131 3	88 5
Firemen (Fire Brigades)§...	89 4	105 0	89 11	87 11	95 8	99 1	108 4	126 5	107 8

* Boots and shoes, butchery, chemists, drapery, furniture, grocery, hardware, and men's outfitting (combined average, including commission on sales).

† Government, municipal, trading establishments, and miscellaneous (combined average, including allowances, if any).

Working hours per week in Government (administrative and clerical), municipal, and certain other clerical occupations: 39.

‡ Average wage includes estimated cost of board and lodging. § And quarters.

6. **Average Wages of Artisans in Railway Employ.**—The following table gives particulars of average wages paid to European artisans in the employ of the Railway Administration as at the 31st December, 1924:—

STANDARD RATES OF WAGES—ARTISANS IN EMPLOY OF RAILWAY ADMINISTRATION, 31ST DECEMBER, 1924.

Occupation.	Railway District.				
	I. p.d.	II. p.d.	III. p.d.	IV. p.d.	V. p.d.
	s. d.	s. d.	s. d.	s. d.	s. d.
Artisans in Railway Employ*.....	18 0	18 9	19 4	20 4	21 6

* Blacksmiths, boilermakers, brassfinishers, bricklayers, cabinetmakers, carpenters, coachbuilders, coppersmiths, electricians, farriers, fitters, French-polishers, harnessmakers, wood machinists, masons, iron and brass moulders, painters, patternmakers, plasterers, plumbers, printers, sawyers, sheet-iron workers, shipwrights, tinsmiths, trimmers, turners and machinists, and wheelwrights.

NOTE.—The Cape Peninsula, Port Elizabeth, East London, Pietermaritzburg, and Durban are in District I; Kimberley is in District III; Bloemfontein is in District IV; and Pretoria and the Witwatersrand are in District V.

7. **Comparison between Wages in South Africa and in Other Countries.**—An attempt is made here to institute a definite comparison between wages paid in South Africa and those paid in the United Kingdom, Canada, Australia, and New Zealand. For this purpose the building trade has been chosen for the following reasons :—(i) The average wages paid in this trade in South Africa approximate very closely to the general average of all trades and apparently are almost equally typical of the average in other countries; and (ii) better and more directly comparable statistics are available for this trade than for others.

The arithmetical average of the wages paid to bricklayers, masons, carpenters and joiners, plumbers, plasterers and painters in the principal towns has been computed. Labourers have been omitted in all cases, on account of the difficulty of comparing South African native labour with the European labour of other countries. For the Union the average of the nine principal towns has been taken, for the United Kingdom the average wages published from time to time in the *Ministry of Labour Gazette*, for Australia the average for Sydney and Melbourne, for Canada the average of thirteen cities, and for New Zealand the average of the four principal industrial districts.

The results are as follows :—

(i) **WEEKLY WAGE RATES—MALE ADULT EUROPEAN WORKERS IN THE BUILDING INDUSTRY IN SOUTH AFRICA AND OTHER COUNTRIES, 1910 TO 1924.**

Country.	1910 (Average).	1914 (Average).	December, 1921.	December, 1922.	1923.	1924.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
South Africa...	97 0	100 7	156 4	135 3	135 1 (Sept.)	135 1 (Sept.)
Australia.....	64 2	70 5	107 7	105 2	109 3 (Dec.)	112 11 (Dec.)
*Canada.....	88 10	97 10	163 7	154 5	160 2	164 5
†New Zealand...	63 10	66 8	98 9	104 3	96 1	97 1
United Kingdom	—	39 5	86 10‡	71 10	69 0 (Sept.)	73 2 (Sept.)

* Average for the year in each case. † 31st March in each case. ‡ February, 1922.

Comparative figures of price indexes of food, fuel, light and rent have been calculated for the different countries, and will be found in Chapter VI. Utilizing these two sets of figures in combination, the following table of international comparisons is given, showing the real value of the wages paid as opposed to the nominal wages detailed in the above table (South Africa in 1910 = 1000).

It should, however, be noted that the figures of price variations have been calculated for December in the years 1919 to 1922 and have been applied to the wage figures given in the above table, which in some cases are for different dates (as shown). From the year 1923 cost of living figures for the months mentioned have been used in making the calculations.

(ii) **INDEXES OF REAL WAGE RATES IN BUILDING INDUSTRY IN SOUTH AFRICA AND OTHER COUNTRIES, 1910 TO 1924.**

(South Africa in 1910 = 1000.)

Country.	1910 (Average).	1914 (Average).	December, 1921.	December, 1922.	1923.	1924.
South Africa....	1000	962	1195	1067	1060 (Sept.)	1051 (Sept.)
Australia.....	951	891	959	956	948 (Dec.)	982 (Dec.)
Canada.....	1134	1100	1306	1248	1278	1324
New Zealand....	982	909	938	1066	938	909
United Kingdom	—	702	821	736	742 (Sept.)	793 (Sept.)

It must be emphasized that no account has been taken of the prices of commodities and services other than food, fuel, light and rent, which in the Union have exceeded the increases above indicated, and which, in so far as they have been similarly affected in other countries, would, if taken into account, tend to reduce the figures in table (ii) as far as post-war years are concerned.

8. **Overtime.**—Rates of payment for time worked in excess of ordinary working hours exist in respect of skilled crafts, tramway occupations and other employment in the Union. These rates are in most cases based upon standard rates of wages and usually comprise

" time and a quarter," " time and a half," or " double time " applicable to weekday, Sunday, and public holiday overtime with greatly varying incidence. In some cases, for example, " time and a half " is payable for weekday overtime worked, in others for Sunday time, and in yet others for time worked on public holidays. The overtime rate in certain instances increases for work performed after midnight. In certain classes of occupation overtime rates apply after the normal hours have been worked on any one day ; in others only after the normal weekly hours have been worked.

9. **Average Wages of European Female Workers.**—The subjoined tables give particulars of average weekly wages paid to European female employees in the Union during a series of years. The figures from 1919 to 1922 relate to the 31st December, and those for the years 1923 and 1924 to the 30th September :—

AVERAGE WEEKLY WAGE RATES—(UNWEIGHTED) EUROPEAN ADULT FEMALE WORKERS IN NINE TOWNS FOR ALL CLASSES OF OCCUPATION, 1910 TO 1924.

(*a*) ALL OCCUPATIONS.

Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910..	30 4	28 6	28 4	36 3	31 8	32 11	38 6	38 9	34 8
1915..	34 11	31 9	31 2	38 11	33 9	36 4	45 9	46 1	38 6
1920..	61 1	55 2	55 5	60 1	60 4	68 8	75 4	75 6	67 2
1921..	58 1	53 0	52 11	56 3	59 3	63 4	68 9	72 5	62 3
1922..	55 0	49 3	51 7	56 6	57 5	62 3	67 6	70 8	60 6
1923..	54 1	50 10	50 8	54 10	58 11	61 3	65 3	67 11	61 11
1924..	52 6	50 4	50 8	54 5	56 6	60 8	63 11	67 8	61 7

(*b*) EACH SEPARATE CLASS OF OCCUPATION.

Year.	Printing.	Manufacturing.	Transportation.	Trading.	Clerical.	Domestic.* (Hotels and Cafés.)
	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910.....	21 11	25 8	45 0	35 9	43 3	27 8
1915.....	24 5	30 3	48 10	41 6	48 8	29 6
1920.....	47 4	57 3	74 7	61 10	78 8	66 3
1921.....	44 5	54 5	67 1	59 11	72 11	65 4
1922.....	41 4	52 2	71 11	56 10	71 3	60 3
1923.....	42 0	52 10	74 9	54 11	67 1	59 0
1924.....	39 9	51 2	79 1	53 9	64 0	57 11

* Includes estimated value of board and lodging, and in some cases board only, from year 1920.

(*c*) CERTAIN INDUSTRIAL AREAS, 30TH SEPTEMBER, 1924.

Industrial Group.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Printing.....	29 5	38 0	31 2	31 11	34 9	44 11	46 7	54 9	46 0
Manufacturing...	43 5	43 0	46 2	48 8	56 6	52 10	52 2	56 7	60 10
Transportation..	72 6	72 6	72 6	78 3	72 6	77 2	91 0	91 0	84 1
Trading.....	53 5	46 0	42 3	50 3	51 2	56 3	63 8	63 10	56 7
Clerical.....	59 10	55 4	56 8	61 4	59 1	65 7	74 1	74 2	70 0
Domestic (Hotels and Cafés)*...	56 7	47 4	55 4	56 1	65 0	67 5	56 0	65 5	52 1

* Includes estimated value of board and lodging, and in some cases board only.

10. **Hours of Labour of European Employees.**—The hours of labour worked by Europeans in the various occupations and branches of industry in the Union have of recent years tended toward greater uniformity. The International Labour Conference at Washington recommended a 48-hour week; and except in relatively few instances the terms of that recommendation apply to industrial conditions in South Africa. Further particulars on the subject will be found in the sixth issue of this *Year Book*; the position is not materially different at the present time.

11. **Awards by Wages Boards.**—Awards have been made in various localities under the *Regulation of Wages, Apprentices and Improvers Act*, 1918. The responsible Minister may appoint wages boards for trades and occupations scheduled in the Act. Boards are composed of equal numbers of employers' and employees' representatives, chosen in consultation with their organizations and presided over by an independent chairman, generally the local magistrate. They are empowered to fix minimum rates of wages for women and young persons in certain trades and occupations set forth in a schedule to the Act, as well as to determine the rates of wages of apprentices and the proportion of apprentices to journeymen in any cases not provided for by the *Apprenticeship Act* of 1922, and the schedule to the latter Act. Inspectors of labour are, for their districts, inspectors under the *Wages Act*. They report on applications for wages boards and make recommendations. If a board is established it is the duty of the inspector to see that its findings are given effect to, and to investigate complaints. For these purposes certain powers are provided in the Act. Fourteen wages boards were in existence on the 1st October, 1925, five having lapsed since 1923.

§ 8. Wages and Hours of Labour (Non-European Workers).

1. **General.**—The ratio of coloured to European labour varies largely in different industries and fields of employment in the Union, but in occupations as a whole the non-European element preponderates to a considerable extent. In the gold mining industry of the Witwatersrand, for example, there were in December, 1924, approximately 180,000 native workers to 18,000 Europeans. In coal mining and in manufacturing industry the coloured and native elements in employment are very much greater than the European. The bulk of general labouring work in agricultural and pastoral operations is non-European; while in municipal employ at the principal industrial centres approximately five coloured and native persons are employed to every two Europeans. These and similar circumstances in relation to employment and its distribution in the Union must be remembered when wage statistics are examined. The average rate of wages of coloured persons, other than native labourers, employed on the Witwatersrand gold mines in certain defined occupations underground is approximately one-fourth of the amount earned by Europeans. The average earnings per shift of all native labourers, surface and underground, in September, 1924, were 2s. 3d. per shift plus free quarters and food, estimated to cost 11d. per shift. Except in the case of diamond mines in the Transvaal and mines in the Cape, where housing only is provided, it is general for mining companies to provide their coloured employees with free quarters and food. The average earnings of surface and underground native labourers and others in the diamond mining industry, as at the 30th September, 1924, were Transvaal 81s. 9d. per month, Cape Province 77s. 8d. per month, and Orange Free State 65s. 9d. per month.

In skilled crafts, as, for example, the engineering, building, and printing trades, many coloured workers in such centres as the Cape Peninsula, Port Elizabeth, and Durban, though relatively few in number to the total of European artisans, have attained a degree of skill which enables them to command wages very little below the standard rates ruling for European workers, although figures reflecting accurate averages cannot be given. In the Cape Peninsula a number of coloured craftsmen in the printing trade receive the same rates of wages as their European fellow-workers. In the manufacturing industries varying degrees of skill have been reached by coloured employees. Considerable skill in furniture-making has been attained by coloured workers at Cape Town and Durban. Tailoring occupations in the Cape Peninsula followed by Malays and other coloured workers are, comparatively speaking, reasonably well paid. In occupations connected with retail trading coloured employees in some centres perform semi-skilled occupations as packers and storemen. In the inland Provinces the occupations of non-European workers are almost exclusively unskilled.

2. **Average Rates of Wages of Non-European Workers.**—Statistics of average wages of non-European workers, in association with figures reflecting broadly the extent of non-European as compared with European employment, are essential to a proper examination of the wage question in the Union. Wage averages of non-European workers employed in different groups of occupation were collected for the first time in 1921.

The wages of non-European females vary so widely that the computation of anything in the nature of reliable averages is impracticable. In the coastal Provinces coloured females follow certain occupations connected with printing and with manufacturing industry, and are also in domestic and hotel employ. In the inland Provinces female labour, largely confined to aboriginal native females, does not occur to any appreciable extent except in domestic service.

The subjoined table gives particulars of average weekly rates of wage paid to coloured and native male unskilled workers in certain industrial areas as at the 30th September, 1923. It will be observed from the figures that the highest averages are in respect of the Cape Peninsula, owing to the relatively higher level of skill and semi-skill reached by coloured workers in that area.

AVERAGE WEEKLY RATES OF WAGE PAID TO COLOURED AND NATIVE MALE UNSKILLED WORKERS IN CERTAIN INDUSTRIAL AREAS IN THE UNION, 30th SEPTEMBER, 1924.

Description.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.	p.w.
Unskilled Occupations connected with—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Engineering...	32 5	27 0	20 3	22 6	14 11	20 7	19 4	19 1	19 3
Building.....	27 10	20 4	16 1	17 4	15 0	18 8	16 9	18 2	15 3
Printing.....	34 2	26 2	22 1	29 2	28 8	27 2	24 10	23 9	25 0
Manufacturing.	26 7	25 4	21 4	27 9	20 10	18 8	19 2	21 9	22 3
Trading.....	30 6	24 1	22 0	22 1	14 2	16 7	21 5	24 1	18 1
Municipal Service.....	36 7	24 3	18 9	22 8	14 6	16 10	16 7	15 8	17 4

3 **Hours of Labour of Non-European Employees.**—Some particulars in this connexion are given in the sixth issue of this *Year Book*.

§ 9. Miners' Phthisis: A Problem of Labour.

1. **General.**—The history of miners' phthisis legislation, commencing with Act No. 34 of 1911 up to and including the consolidating Act, No. 40 of 1919, has been traced in previous issues of this *Year Book* (Nos. 1 to 6), to which reference may be made for a summary of these enactments. Recent legislation includes amending Act No. 35 of 1924 and consolidating Act No. 35 of 1925. The latter Act consolidates all legislation on the question of miners' phthisis, and makes certain additional provisions for beneficiaries and their dependents. A résumé of both Acts and a statement in parallel columns showing the extent of the principal changes as between the Act of 1919 and the Act of 1925 are published at page 247 *et seq.* of the present volume. The administration of the miners' phthisis law is vested in the Miners' Phthisis Board, to which is attached the Miners' Phthisis Medical Bureau, functioning in association with the South African Institute for Medical Research, Johannesburg.

At the 31st March, 1925, there were 1,190 miners, of average age of 46·88 years, in receipt of allowances during life averaging £12. 6s. 1d. per mensem; of these, 881 were in receipt of additional allowances, averaging £2. 9s. 5d. per mensem, in respect of their wives, whose average age was 40·51 years. Additional allowances, averaging £1. 2s. 1d. per mensem, were being paid to miners in respect of 1,962 children, whose average age was 9·57 years. Further, there were 1,447 dependents of deceased miners (excluding children, but including 1,414 widows), of an average age of 46·21 years, in receipt of allowances during life averaging £4. 17s. 10d. per mensem, and additional allowances averaging £2. 6s. 3d. were being paid in respect of 2,923 children of an average age of 11·44 years.

At the 31st March, 1925, an aggregate amount of £7,202,261 had been paid as compensation to and in respect of silicosis and tuberculosis sufferers under the Miners' Phthisis Acts since the inception of miners' phthisis legislation in 1911; the amount so paid, since the 1919 Act came into operation, being £3,945,998.

2. **Cases dealt with under Phthisis Acts.**—The table hereunder gives the numbers of cases dealt with under the Miners' Phthisis Acts in which awards have been made, distinguishing between persons born in South Africa and those born elsewhere; and the section of the particular Act under which the awards have been made:—

(i) MINERS' PHTHISIS ACTS—NUMBER AND PARTICULARS OF CASES IN WHICH ORIGINAL AWARDS HAVE BEEN MADE—PERIOD 1st AUGUST, 1912, TO 31st MARCH, 1925.

Year.	Born in South Africa.						Born Elsewhere.						Dependents.	Grand Total.
	A.P.S. *	P.S. †	S.S. ‡	T. §	T.S. ‖	S.A.S. ¶	A.P.S. *	P.S. †	S.S. ‡	T. §	T.S. ‖	S.A.S. ¶	D.N.M. **	
1.8.12–31.3.20	126	1,763	706	84	89	5	210	2,896	2,779	122	491	11	919	10,201
1920–21..	140	99	7	15	1	—	229	166	11	23	10	—	6	707
1921–22..	110	8	1	22	4	—	116	43	7	14	12	—	8	345
1922–23..	147	7	2	14	8	—	165	19	3	6	12	—	6	389
1923–24..	120	3	5	11	8	—	135	12	6	10	3	—	7	320
1924–25..	245	3	4	11	15	—	213	11	8	—	14	—	10	534
TOTAL..	888	1,883	725	157	125	5	1,068	3,147	2,814	175	542	11	956	12,496

* Ante-primary Silicosis, Section 25 (*a*), Act No. 40 of 1919.
† Primary Silicosis, Section 21 (1) (*a*), Act No. 19 of 1912; Section 9 (1) (*a*), Act No. 44 of 1916; Section 25 (*b*), Act No. 40 of 1919.
‡ Secondary Silicosis, Section 21 (1) (*b*), Act No. 19 of 1912; Section 9 (1) (*b*), Act No. 44 of 1916; Section 25 (*c*), Act No. 40 of 1919.
§ Tuberculosis without Silicosis, Section 9 (1) (*e*), Act No. 44 of 1916; Section 26 (*a*), Act No. 40 of 1919.
‖ Tuberculosis with Silicosis, Section 9 (1) (*f*), Act No. 44 of 1916; Section 26 (*b*), Act No. 40 of 1919.
¶ Special Award Silicosis, Section 11 (*a*), Act No. 44 of 1916.
** Deceased Non-Beneficiary Miners, Sections 21 (1) (*c*), 21 (1) (*d*), Act No.19 of 1912; Section 6, Act No. 29 of 1914; Sections 9 (2) (*a*), 9 (2) (*b*), 11 (*b*), Act No. 44 of 1916; Sections 27 (*b*), 29 (*c*), Act No. 40 of 1919.

3. **Medical Examinations.**—The following tables give particulars as to medical examinations held in respect of applications to benefit under the Miners' Phthisis Acts and in respect of miners employed or to be employed underground on the mines. Table (i) shows the number of examinations and investigations conducted by the central medical bureau, and table (ii) gives details of the medical reports received by the Miners' Phthisis Board during the period indicated:—

(i) EXAMINATIONS AND INVESTIGATIONS CONDUCTED BY THE MEDICAL BUREAU, 1st AUGUST, 1924, TO 31st JULY, 1925.

Class of Examination.	Relevant Sections of Act (No. 40 of 1919).	Number of Examinations.*
Initial	43	5,570
Special	43	2,372
Periodical—First		707
Second		565
Third		491
Fourth		482
Fifth		503
Sixth		548
Seventh		576
Eighth		609
Ninth		702
Tenth	42	985
Eleventh		1,465
Twelfth		1,709
Thirteenth		1,882
Fourteenth		2,278
Fifteenth		3,354
Sixteenth		3,871
Seventeenth		1,940
Eighteenth		156
		22,823

* Attention may be called to the fact that the number of examinations is not always identical with the number of examinees.

(i) EXAMINATIONS AND INVESTIGATIONS CONDUCTED BY THE MEDICAL BUREAU, 1ST AUGUST, 1924, TO 31ST JULY, 1925—*continued.*

Class of Examination.	Relevant Sections of Act (No. 40 of 1919).	Number of Examinations.*	
Benefits—			
Examinations of Applicants who were not Beneficiaries prior to 1st August, 1916	25, 28	271	
First Examinations	—	2,146	
Second and Further Examinations	—	—	2,417
Examinations of Applicants who were Beneficiaries prior to 1st August, 1916	28		
First Examination—			
Formerly in Primary Stage	—	—	
Formerly in Secondary Stage	—	2	
			2
Second and Further Examinations—			
Formerly in Primary Stage	—	702	
Formerly in Secondary Stage	—	283	
			985
Natives	39		1,364
Post-mortem Claims—			
Miners	27, 29, 30		
With Post-mortem Examination	—	157	
Without Post-mortem Examination	—	83	
			240
Natives	39 (2)		199
Reviews	—		592
Appeals	45		73
Change House Attendants	—		11
Children of Beneficiaries	Third Schedule		22
TOTAL OF ALL EXAMINATIONS	—		36,670

* Attention may be called to the fact that the number of examinations is not always identical with the number of examinees.

(ii) REPORTS OF MEDICAL EXAMINATIONS RECEIVED BY MINERS' PHTHISIS BOARD, YEAR ENDED 31st MARCH, 1925.

Classification.	Without Tuberculosis.	With Tuberculosis.	Total.
A.—**Applications under Act No.* 19 *of* 1912 :—			
First examinations	—	—	—
Second and further	—	—	36
Proviso under Section 21 (1) (*b*)	—	—	—
TOTAL	—	—	36
B.—*Applications under the* 1916 *and* 1919 *Acts* :—			
First examinations	195	21	216
Second and further	1,776	255	2,031
Section 9 (1) (*c*)—			
First examinations	1	—	1
Second and further	271	10	281
Section 10—			
First examinations	—	—	—
Section 28—			
Second and further (Section 10, Beneficiary Miners)	620	24	644
Periodical examinations (first notifications)	455	42	497
TOTAL	3,318	352	3,670
GRAND TOTAL	—	—	3,706

* No distinction made between tuberculous and non-tuberculous cases.

NOTE.—Reports received from Bureau in respect of applicants under Section 9 (1) (*c*) and Section 10 of the New Law, in which it is stated that applicants' prior condition was due to tuberculosis, now inactive, have been included under the heading "Without Tuberculosis."

4. Records of Beneficiaries.—The examination of records prepared by the Miners' Phthisis Board as to miners who have been granted awards has permitted the preparation of the data given in the subjoined tables. An analysis of the figures contained in these tables will be found in the sixth and previous issues of this *Year Book.*

(i) MINERS' PHTHISIS—PARTICULARS AS TO MINERS WHO RECEIVED ORIGINAL AWARDS ON THE GROUNDS OF ANTE-PRIMARY AND PRIMARY MINERS' PHTHISIS WITH OR WITHOUT TUBERCULOSIS, SHOWING PERIODS OF UNDERGROUND SERVICE, RATIO PER CENT., AVERAGE SERVICE AND AVERAGE AGE, PERIOD 1st APRIL, 1920* TO 31st MARCH, 1925.

Year.	Periods of Underground Service, in Years.						Total.
	10 years and over.	8 years and under 10.	6 years and under 8.	4 years and under 6.	2 years and under 4.	Under 2 years.	
(1) Ratio per cent. which No. under each Period of Service bears to Total No.							
1920–21.....	21·06	24·62	25·86	18·26	8·20	2·00	100·00
1921–22.....	33·10	33·10	20·82	7·85	3·08	2·05	100·00
1922–23.....	31·65	29·41	23·53	10·65	3·64	1·12	100·00
1923–24.....	40·71	28·22	20·36	7·50	1·78	1·43	100·00
1924–25.....	45·10	28·30	16·60	6·60	2·34	1·06	100·00
(2) Average Actual Service under each Period of Service.							
1920–21.....	11·04	8·88	7·64	5·12	3·03	1·46	7·70
1921–22.....	11·45	8·95	7·05	5·11	3·33	1·12	8·04
1922–23.....	11·79	8·95	7·07	5·01	3·46	1·45	8·14
1923–24.....	11·94	8·93	7·28	5·18	2·70	0·84	9·31
1924–25.....	12·12	8·93	7·15	5·31	2·78	1·56	9·61
(3) Average Age under each Period of Service.							
1920–21.....	44·77	40·97	37·96	39·32	40·24	49·46	40·65
1921–22.....	43·68	42·21	39·70	39·09	40·67	43·50	41·91
1922–23.....	41·79	39·90	40·13	40·79	41·77	45·50	40·78
1923–24.....	42·93	40·25	41·47	39·62	41·60	47·25	41·31
1924–25.....	42·94	42·66	40·40	38·97	40·27	53·00	42·23

(ii) MINERS' PHTHISIS—PARTICULARS AS TO MINERS WHO RECEIVED AWARDS ON THE GROUNDS OF SECONDARY MINERS' PHTHISIS OR MINERS' PHTHISIS WITH TUBERCULOSIS, SHOWING PERIODS OF UNDERGROUND SERVICE, RATIO PER CENT., AVERAGE AGE, ETC., PERIOD 1st APRIL, 1920,* TO 31st MARCH, 1925.

Year.	Periods of Service, in Years.						Total.
	10 years and over.	8 years and under 10.	6 years and under 8.	4 years and under 6.	2 years and under 4.	Under 2 years.	
(1) Ratio per cent. which No. under each Period of Service bears to Total No.							
1920–21.....	10·53	21·05	15·79	15·79	21·05	15·79	100·00
1921–22.....	75·00	—	12·50	12·50	—	—	100·00
1922–23.....	—	—	33·34	16·66	50·00	—	100·00
1923–24.....	7·70	—	30·77	15·38	15·38	30·77	100·00
1924–25.....	36·84	13·16	23·68	7·90	7·90	10·52	100·00
(2) Average Actual Service under each Period of Service.							
1920–21.....	11·00	8·75	6·66	5·33	3·25	1·66	5·84
1921–22.....	13·99	—	6·71	5·50	—	—	12·01
1922–23.....	—	—	6·71	5·60	3·22	—	4·78
1923–24.....	10·26	—	6·76	5·35	3·06	0·76	4·21
1924–25.....	12·51	8·99	6·72	5·30	3·42	0·69	8·19
(3) Average Age under each Period of Service.							
1920–21.....	47·00	46·50	43·00	40·33	50·25	43·66	45·36
1921–22.....	48·17	—	48·00	50·00	—	—	48·28
1922–23.....	—	—	50·00	47·00	36·33	—	42·66
1923–24.....	52·00	—	45·25	36·00	40·00	54·00	42·77
1924–25.....	33·10	38·00	40·44	39·33	48·00	55·50	42·14

* Similar data for earlier years (from 1912–13) are given in the sixth and previous issues of this *Year Book*.

(iii) MINERS' PHTHISIS—NUMBER AND PERCENTAGE OF DEATHS OF MINERS WHO RECEIVED AWARDS ON THE GROUNDS OF SECONDARY MINERS' PHTHISIS OR MINERS' PHTHISIS WITH TUBERCULOSIS—PERIOD 1st AUGUST, 1912, TO 31st MARCH, 1925.

YEAR.	BORN IN SOUTH AFRICA.				BORN ELSEWHERE.			
	No. of Beneficiaries.	No. of Deaths.	Percentage of Deaths.	Average Age at Death.	No. of Beneficiaries.	No. of Deaths.	Percentage of Deaths.	Average Age at Death.
1912–13....	419	196	46·78	42·73	1,213	708	58·37	46·39
1913–14....	214	98	45·79	42·08	923	541	58·61	44·91
1914–15....	102	47	46·08	41·55	409	277	68·12	44·52
1915–16....	132	63	47·73	41·45	350	216	61·71	44·52
1916–17....	55	47	85·45	39·13	260	218	83·85	45·35
1917–18....	104	76	73·08	42·38	304	236	77·63	45·72
1918–19....	107	52	48·60	42·82	304	206	68·15	46·20
1919–20....	41	41	100·00	43·45	123	119	96·75	46·10
1920–21....	41	32	78·05	43·45	93	73	78·47	45·32
1921–22....	62	40	64·52	44·09	113	76	67·26	46·44
1922–23....	70	32	45·71	44·26	109	55	50·46	44·54
1923–24....	81	25	30·86	45·07	111	47	42·34	47·10
1924–25....	137	14	10·22	47·43	165	16	9·70	44·48
TOTAL....	1,565	763	48·82	41·92	4,477	2,788	62·25	44·68

(iv) NUMBER OF DEATHS OF BENEFICIARY MINERS NOTED BY THE MINERS' PHTHISIS BOARD, CLASSIFIED IN ACCORDANCE WITH THE RESULTS OF THE LAST MEDICAL EXAMINATION—1st APRIL, 1920,* TO 31st MARCH, 1925.

Period.	South African Born.					Born Elsewhere.					Total.
	N.S.	S.	S1.	S2.	T.	N.S.	S.	S1.	S2.	T.	
1920–21.....	—	8	24	60	8	—	13	63	191	12	379
1921–22.....	—	9	15	65	11	—	14	43	176	14	347
1922–23.....	1	13	23	58	9	1	31	35	128	7	306
1923–24.....	2	10	13	54	10	—	23	32	142	8	294
1924–25.....	5	17	16	73	5	4	22	44	159	7	352
TOTAL (1/8/12–31/3/25).....	8	76	193	708	65	5	122	476	2,633	72	4,358

N.S.—No silicosis.
S.—Silicosis in the ante-primary stage or physically unfit for underground work by reason of the presence of silicosis, though not in either the primary or the secondary stage.
S1.—Silicosis in the primary stage with or without tuberculosis.
S2.—Silicosis in the secondary stage with or without tuberculosis.
T.—Tuberculosis without silicosis.

* Similar data for earlier years (to 1912–13) are given in the sixth and previous issues of this *Year Book*.

5. **Revenue and Expenditure under Phthisis Acts.**—The subjoined table gives particulars as to revenue and expenditure of the Compensation Fund under the Miners' Phthisis Acts for a period of years. The cost of administration during the year 1923–24 amounted to £44,184.

Under section 9 (1) of the *Miners' Phthisis Act*, 1919, the Insurance Fund (see previous issues of this *Year Book*) was merged in the Compensation Fund.

MINERS' PHTHISIS COMPENSATION FUND—REVENUE AND EXPENDITURE FOR YEARS 1917–18 TO 1923–24.

Particulars.	1/8/17—31/7/18.	1/8/18—31/7/19.	1/8/19—31/3/20.	1/4/20—31/3/21.	1/4/21—31/3/22.	1/4/22—31/3/23.	1/4/23—31/3/24.
REVENUE.							
	£	£	£	£	£	£	£
Contribution by Employers	448,339	398,351	542,097	925,515	689,966	817,325	884,167
Interest	34,572	10,665	15,770	17,936	32,395	44,484	58,438
Fines	882	438	344	593	564	396	341
Miscellaneous	27,338	66,822	12,475	172	556	293	1,540
TOTAL.....£	511,131	476,276	570,686	944,216	723,481	862,498	944,486
EXPENDITURE.							
	£	£	£	£	£	£	£
Settlement and Industries Account	20,000	20,000	20,000	20,000	—	—	—
Payments in regard to Awards granted under prior Law	53,271	27,040	93,517	72,086	38,759	23,952	16,136
Payments to Beneficiaries under Act No. 40 of 1919	—	—	785,213	710,808	493,541	498,971	469,974
Full and Partial Awards	276,838	145,574	—	—	—	—	—
Monthly Payments	185,931	202,015	—	—	—	—	—
Payments under other Acts	82,959	31,199	—	—	—	—	—
Medical and Funeral Expenses	4,272	5,596	3,640	5,826	5,598	5,136	5,046
Interest Payable	—	—	1,541	4,444	2,757	2,206	1,524
Miscellaneous	46,570	48,545	1,991	3,635	3,929	4,922	5,814
TOTAL.....£	669,841	479,969	905,902	816,799	544,584	535,187	498,494

§ 10. Recent Phthisis Legislation.

1. **The Miners' Phthisis Act Amendment Act, No. 35 of 1924.**—Act No. 35 of 1924 came into operation on the 1st of August of that year and amends the Miners' Phthisis Act, No. 40 of 1919. It provides mainly for :—

(*a*) The creation and maintenance of an outstanding liabilities fund and the purpose for which this fund is to be used.

(*b*) The quarterly levies on employers to be assessed : 30 per cent. in proportion to the earnings of the miners employed and 50 per cent. in proportion to the employer's silicosis rate instead of 45 per cent. and 35 per cent. respectively ; the 20 per cent. in proportion to the amount for which the employer was assessed for normal income tax remains unaltered.

(*c*) The silicosis rate of the employers to be ascertained by adding together the periods of employment on scheduled mines during the preceding ten years (instead of five years) of all miners who, during the preceding twelve months, have developed silicosis in a stage entitling them to benefits ; at the same time the silicosis rate is to be reduced in exceptional cases.

(*d*) The determination by an actuary of the amount of the outstanding liability in respect to each scheduled mine which amount shall become due and payable, immediately, should the mine be closed down or withdrawn from the list of scheduled mines.

(*e*) The investment, subject to the sanction of the Minister, of the Board's surplus funds in municipal stock, loans to local authorities, or in Rand Water Board Stock, in addition to Union Government Stock, Union Treasury Bills, and fixed deposits with a bank.

(*f*) Such additional benefits to a miner or his dependents, as the miner would become entitled to if he had made application within the period prescribed by the proviso to section 25 of Act No. 40 of 1919, provided the miner ceased underground work within three months after he was notified for the first time that he had developed silicosis in a stage entitling him to benefits.

(*g*) Benefits to a prior law beneficiary miner or his dependents under Act No. 40 of 1919, as if such prior law benefit had not been granted, provided the miner *lawfully* worked underground on scheduled mines after the grant of such prior benefits.

(*h*) The extension of the period prescribed by section 28 (2) of Act No. 40 of 1919 within which the miner should have returned to South Africa before certain benefits could be granted, if the delay in his return was due to his being on active service, being engaged on work of national importance, or by reason of any other circumstances arising out of the 1914–18 war.

(*j*) The appointment of a joint medical board to examine miners who went on active service and were refused benefits under both the Miners' Phthisis Acts and the War Special Pensions Act, No. 42 of 1919, and for benefits to be granted under either of the above-mentioned enactments in accordance with the decision of the joint medical board.

(*k*) Awards made out of the Consolidated Revenue Fund of the Union to dependents of prior law beneficiary miners whose deaths took place too late to enable their dependents to apply before the 1st August, 1920, as required by section 29 of Act No. 40 of 1919, to be deemed to be awards lawfully made under paragraph (*b*) of the said section, the amount paid under such awards to be refunded to the Consolidated Revenue Fund from the Compensation Fund.

Dependents who claim under section 29 (*b*) of Act No. 40 of 1919, to apply within one year of the date of death of the miner and, if the prior law beneficiary miner was in receipt of or entitled to a life allowance, the dependents to be granted a life allowance without the Bureau having to certify that silicosis was a contributing or predisposing factor in the causation of the death of the miner; the other conditions of section 29 (*b*) of Act No. 40 of 1919 must still, however, be complied with.

(*l*) One sum payments (equal to twenty-four times the monthly allowance) to widows who remarry and are in receipt of a life allowance.

(*m*) Awards in terms of section 29 of Act No. 40 of 1919, to widows who are South Africans, who married miners in South Africa and who left South Africa with their late husbands and were thus not entitled to benefits under the section mentioned owing to their not being resident in South Africa at the date of the miner's death, provided the widows returned to South Africa within two years of the date of death.

(*n*) Refund of amount deducted, in terms of section 37 of Act No. 40 of 1919, from monthly allowances granted to dependents and that no further deductions be made; the section mentioned provided for the recovery of amounts paid under section 11 of Act No. 44 of 1916 (or any amendment thereof) from the award made under Act No. 40 of 1919.

(*o*) Additional allowances to and in respect to children in excess of three and under sixteen years of age in cases of life allowance awards and no allowance to be payable to a miner for his wife or child of a marriage contracted after the date of the Bureau's certificate entitling him to a life allowance; Act No. 40 of 1919 provided for additional allowances for children not exceeding three and under sixteen years of age and for an allowance to a miner for his wife if he was married to her before the date of the life allowance award.

2. **Miners' Phthisis Acts Consolidation Act, No. 35 of 1925.**—*Part I: General.*—Act No. 35 of 1925, which repealed Miners' Phthisis Act, No. 40 of 1919, and the amending Act, No. 35 of 1924, consolidated the whole of the laws relating to miners' phthisis, and is in many respects the expression of many years' observation and experience of silicotic conditions in the gold mining areas along the Witwatersrand.

The new Act provides for the publication in the *Gazette* of a list of mines, termed *scheduled mines*, in the Union in which mineral dust is considered to be a cause of silicosis, and also for the addition or withdrawal of mines from the list as circumstances may determine.

Miners' Phthisis Board.—Provision is made for a new Phthisis Board, which will assume control of all assets, property, documents, etc., in possession of the previous Board, and have the power to call witnesses, whose failure to appear without reasonable excuse is a penal offence.

The functions of the Board are—

(*a*) to carry to completion the uncompleted work of its predecessor;
(*b*) to administer all funds placed at its disposal;
(*c*) to provide for the training of beneficiaries in trades or industries;
(*d*) to assist in obtaining employment for such as are trained;
(*e*) to give financial assistance to any undertaking in which beneficiaries or dependents of beneficiaries are employed;

(*f*) to co-operate with any institution, Government or municipal department employing beneficiaries;
(*g*) to assist in defraying reasonable expenses of transport of beneficiaries to places where employment may be available;
(*h*) to assist financially in establishing and maintaining one or more sanatoria for silicotic patients; and
(*i*) to collect and tabulate statistical data relating to the incidence or cause of silicosis and tuberculosis.

Medical Bureau.—This Bureau is established to work in conjunction with the Board, and its decision on purely medical questions must be accepted. Its functions are to direct all prescribed medical examinations and to issue certificates under the Act.

Medical Board of Appeal.—Any miner who is dissatisfied on medical grounds with the certificate of the Bureau or with the results of any examination for benefits; or if a dependent is dissatisfied with the decision of the Bureau as to the cause of a miner's death, an appeal may be lodged with the Medical Board of Appeal, which consists of three medical practitioners with special knowledge of respiratory diseases. This Appeal Board, whose decision is final, is empowered to call for all records in the case, and may subject the appellant to clinical and, if necessary, X-ray examination.

Part II: Grant of Benefits—Miners.—Subject to certain specified conditions, a miner who—

(*a*) is found to be suffering from silicosis in the ante-primary stage may be granted a one-sum benefit, calculated upon his month's earnings, or
(*b*) is found to be suffering from silicosis in the primary stage, as in (*a*), with an addition of 50 per cent.
(*c*) A miner who has contracted silicosis in the secondary stage, or tuberculosis with silicosis, is entitled to payment of a monthly allowance, calculated upon—
(i) half of that part of his month's earnings which did not exceed £20;
(ii) one-quarter of that part of his month's earnings which exceeded £20 but did not exceed £28. 6s. 8d.;
(iii) one-twentieth of that part of his month's earnings which exceeded £28. 6s. 8d.

For his wife, if the miner were married before the 1st August, 1919, or before the date of the Bureau's certificate entitling him to an award of a monthly allowance—
(iv) one-fifth of the total amount payable in respect of the miner.
For each of his living legitimate children (including adopted and step-children), not exceeding three in number, until such child attains the age of sixteen years or marries earlier—
(v) one-tenth of the total amount paid in respect of the miner;
and for each child in excess of three—
(vi) one-twentieth of such amount.

No allowance is granted for more than three children for any period prior to the 1st August, 1924, and a child of a miner over sixteen years of age, if unable to earn a living by reason of ill-health, may continue to draw an allowance at the option of the Board.

A miner who has been granted a one-sum benefit may leave the whole or part to his credit with the Board and receive interest on the amount added half-yearly.

Dependents.—Benefits are granted to the dependents of deceased miners who were in receipt of or entitled to a monthly allowance or whose death was proved to the satisfaction of the Board to have been due to silicosis or other cause in which silicosis was a contributing or predisposing factor—

(i) to a widow or child, double the amount prescribed for the wife or child;
(ii) to a dependent wholly relying upon the miner for support, double the amount prescribed for a wife;
(iii) to a dependent partially relying upon the miner for support, a monthly allowance, subject to certain conditions, equal to the average monthly contributions of the miner, for such period as the Board may determine.

Prior Law Awards.—A miner who has only received benefits under the prior law and is certified by the Bureau to be suffering from silicosis in the secondary stage or tuberculosis with silicosis, may, subject to certain residential qualifications, be granted a monthly allowance under the Act, or, if he be not entitled to such allowance, the Board may award a benefit in such instalments as it may decide, after deducting the benefits already received from the maximum amount of £750.

Miners who have received benefits under the prior law and who are certified by the Bureau to be suffering from silicosis in the ante-primary or primary stage may receive compensation in such instalments as the Board may direct, but the total amount of the award, including the benefits received under the prior law, may not exceed the amount of the benefits for similar silicotic conditions under the Act.

The claims of dependents of such deceased miners to increased benefits under the Act, and of dependents whose claims were refused on the grounds that they were not in necessitous circumstances, may now be submitted for the decision of the Board.

Residential Qualifications.—The Board in its discretion may award a monthly allowance to a widow and/or child of a miner who died outside South Africa, if the residential qualification be the only hindrance to the grant, provided the widow was born and married to the miner in South Africa, or was resident in South Africa for a continuous period of at least five years prior to the miner's leaving the country, and, further, that such widow and/or child returned to South Africa within two years of the death of the miner and had thereafter continuous residence. Such grant ceases and determines should the person subsequently leave South Africa without permission of the Board, granted for temporary purposes only, or outstays such permission.

If the Board is, however, satisfied that any person has been prevented from returning to South Africa or from submitting his claim within the prescribed period owing to his being on active service, or through other circumstances arising out of the 1914–18 war, the time may be extended as seems equitable.

The monthly benefits accorded to a miner or his dependents resident outside South Africa ceases when the total amount of £750 has been paid.

Military Service Claims.—A miner who has been refused compensation under the War Special Pensions Act, No. 42 of 1919, on the ground that his disablement at the conclusion of his military service was due to his occupation as a miner, may claim to be examined by a joint medical board, whose decision is final, and in the event of the disablement being considered occupational, the miner is entitled to receive benefits appropriate to his case under Act No. 35 of 1925.

Marriage of Beneficiaries.—A widow or dependent (other than a child under sixteen) of a deceased miner in receipt of a monthly allowance who remarries or marries is entitled to a one-sum payment on marriage with the limitation that the total benefit does not exceed £750.

Inspectors of Mines.—Officials of this class certified to be suffering from silicosis, and their dependents, are entitled to phthisis benefits, in addition to any benefits accruing to them under any pension statute.

Native Labourers.—The compensation payable to native labourers found to be suffering from silicosis is as follows:—

(i) Ante-primary stage: a one-sum benefit calculated upon his month's earnings.
(ii) Primary stage: 50 per cent. additional of the above amount.
(iii) Secondary stage or tuberculosis with silicosis: 100 per cent. additional of the above amount.

Provision is made for the periodical medical examination of native labourers, and in the event of a native labourer's death from silicosis or tuberculosis for the payment of benefits to his dependents.

Part III: Funds.—All moneys received are paid into the Miners' Phthisis Compensation Fund established under Act No. 19 of 1912, and the funds are applied to certain specified purposes. Provision is made for an appropriation not exceeding £4,000 each quarter for the purpose of forming a Trades and Industries Fund. The Settlement and Industries Fund hitherto existing is closed and its assets and liabilities carried to the Compensation Fund.

The Board is empowered to levy upon the employers of scheduled mines an amount proportionate to the silicosis rate of each mine, and the employers are required to transmit to the Board a statement of the earnings of the miners employed.

Medical Examination.—A medical examination of underground employees of a scheduled mine is prescribed to take place at intervals of not less than six months—natives, not less than three months—to whom a certificate must be issued stating whether or not the worker is suffering from silicosis and in what stage.

All workers before being employed underground must submit themselves to a medical examination conducted by the Bureau.

Part IV: Mines Closing Down.—The liability, which forthwith becomes due, of scheduled mines ceasing operations for payments to the Compensation Fund to cover present and future silicotic claims is determined by an actuary appointed by the Minister.

Liability of Open Mines.—An actuarial calculation of the liability of the fund is made annually, and the amount ascertained apportioned amongst the employers. The Bureau may require security for the payment of such amounts, and failing satisfactory security, may demand payment of the whole outstanding liability. In default of payment of any amount due, the Board may recover from the employer by action in a competent court.

Insolvent Employers.—The Board's claim for moneys due from an insolvent estate has priority over all other debts (including mortgages, debentures, etc.) except wages.

Board's Control of Awards.—The Board may pay to the dependents of beneficiaries who are incapable of managing their own affairs, or for other reasons, such instalments of allowances or benefits as it may from the circumstances of the case decide.

Payment of Passages.—The Board may grant a passage, together with a sum for incidental expenses, to a miner and/or dependents who may wish to proceed overseas for other than temporary purposes. The monthly allowance, however, ceases if and when the total amount of benefits paid exceeds £750.

Hypothecations.—Benefits under the Act cannot be assigned or hypothecated, nor are they liable to attachment under a judgment or order of court.

Gazetted Mines.—Provision is made for a levy upon mines which are not *scheduled* mines, the names of which the Minister may publish in the *Gazette*, and for the payment of benefits to miners and native labourers who have contracted silicosis or tuberculosis while employed on such mines.

3. **Phthisis Acts, 1919 and 1925.**—The Phthisis Acts of 1911, 1912, 1914, 1916, 1917, and 1918 provided fixed but arbitrary amounts for the different stages of compensation, which under these Acts was more or less of an experimental nature. Act No. 40 of 1919 consolidated and amended the prior Acts and provided a more uniform basis of compensation, at the same time imposing upon the scheduled mines practically the sole liability for the maintenance of the Compensation Fund. Amending Act No. 35 of 1924, *inter alia*, made alterations in the scale of assessment, fixed certain financial control of surplus funds, and extended the scope of the benefits in certain directions to correct and meet new conditions which had arisen. Act No. 35 of 1925 consolidated and amended the whole existing legislation on the subject of miners' phthisis. The following parallel statement gives some of the more important provisions of the 1919 Act, and compares them with the principal amendments of similar clauses which have been introduced in the Act of 1925. A *prior* law beneficiary miner, mentioned in the text, is a miner who received benefits prior to the 1st August, 1919, and a *present* law beneficiary miner one who received benefits on and after that date.

Act No. 40 *of* 1919.	*Act No.* 35 *of* 1925.
The Act of 1919 provided compensation based on the miner's earnings.	The Act of 1925 also provides for compensation based on the miner's earnings.
The Act of 1919 gave a miner three months' time within which to cease work and claim his compensation, and reckoned from the date he was certified to be entitled.	The Act of 1925 also gives the miner three months' time to cease work, otherwise he debars himself from further benefits should he afterwards progress into another stage.
The Act of 1919 gave the miner one month within which to appeal from the decision of the Medical Bureau, but his appeal had to be decided by the same medical body.	The Act of 1925 gives the miner three months' time within which to appeal from the decision of the Medical Bureau, but his appeal has to be decided by an independent Medical Board of Appeal. The period within which he has to appeal is the same period within which he has to cease work underground.
The Act of 1919 debarred a miner who got worse from receiving further benefits if he did not apply for benefits or cease work within three months, and he so debarred his dependents from ever receiving any benefits.	The Act of 1925 also debars a miner who gets worse from receiving further benefits if he fails to apply for benefits or cease work within three months, but if the miner so debarred is in the secondary stage or complicated stage, or if he dies from silicosis or if silicosis contributes to his death, his dependents become entitled to a monthly pension.
The Act of 1919 did not allow a miner to leave his lump-sum compensation on loan with the Board, but the Board arranged to do this in the past with the consent of the Government.	The Act of 1925 gives a miner the right to leave the whole or part of his lump-sum compensation with the Board at compound interest. The Board will act as his bankers, and he will be able to draw the whole or any part of his money at any time, and in the event of his death any balance plus interest will be paid to his dependents or to his estate.
The Act of 1919 provided compensation in a lump sum to a miner who was suffering from pure tuberculosis (ordinary consumption) if he were certified to be so suffering within a year of his last employment on a scheduled mine. He became entitled to an award equal to that of the primary stage.	The Act of 1925 contains the same provision and provides the same period, namely, a year. *Miners who have not received compensation and who have left the mines should see that they are thoroughly examined within a year from the date they were last employed.* A miner who is certified to be suffering from pure tuberculosis within a year of his last employment underground will be entitled to the primary stage award.
The Act of 1919 provided benefits to widows and only three children under sixteen years of age, and also to persons who were wholly dependent upon a deceased miner, provided their deceased breadwinner was in the secondary stage, complicated stage, or died from silicosis.	The Act of 1925 provides benefits to widows and all children under sixteen years, all physically and mentally defective children, persons who are wholly dependent, and persons who are partly dependent upon a deceased miner.
The Act of 1919 provided a monthly pension to the *prior* law beneficiary miner who was in the secondary or complicated stage and also to the *present* law beneficiary miner in the same stages.	The Act of 1925 also provides monthly pensions to both these classes.

The Act of 1919 provided a monthly allowance to the *prior* law pensioner's dependents, but only if the miner died from silicosis or if silicosis contributed to his death, but the *present* law pensioner's dependents could get the monthly allowance automatically after his death.

The Act of 1919 provided that the oversea dependents of a *prior* law pensioner were debarred from receiving benefits after his death if the pensioner received in allowances less than £750 before he died.

The Act of 1919 provided that the oversea dependents of a *present* law pensioner shall receive the balance up to £750 after his death if the pensioner received in allowances less than £750 before he died.

The 1919 Act provided a monthly pension to the widow of a *prior* law beneficiary miner if such miner died from silicosis or if silicosis contributed to his death, and a monthly pension to the widow of a *present* law beneficiary miner if such miner died from silicosis which was in the secondary stage.

The Acts of 1916, 1917, and 1918 debarred a miner who received benefits under the Acts of 1911, 1912, and 1914 from receiving further benefits if he was not resident in South Africa on and after the 1st August, 1916.

The 1919 Act condoned such absence if the miner returned before the 1st of June, 1919, or before the 10th of January, 1921, if the delay in his return was due to circumstances arising out of the Great War.

The Act of 1919 made no provision for *prior* law beneficiary miners who had only received £96, £196, £200, or £300, who had not progressed, and who were suffering from silicosis in the ante-primary or primary stage or from pure tuberculosis. There are approximately 2,420 such cases to be levelled up in South Africa and oversea.

The Act of 1919 made no provision for *prior* law beneficiary miners who had received £400 or £275 or less, and who were oversea and suffering from silicosis in the secondary stage or from silicosis with tuberculosis.

The Acts of 1916, 1917, and 1918 provided £750 as the amount in compensation to be paid to miners suffering from silicosis in the secondary stage or in the complicated stage. Some of these sufferers were not debarred from receiving the sum £750 by going oversea, but others could not be granted the full amount of £750 because they were not resident in South Africa. This invidious differentiation created great discontent and dissatisfaction.

Under the Act of 1919 the dependents of the deceased *prior* law beneficiary miner had to apply for benefits within twelve months from the 1st August, 1919, and had to be resident in South Africa. Some widows applied after the twelve months had expired and were debarred from receiving benefits.

The Act of 1919 excluded from benefits a dozen widows of miners who died many years ago. These widows received no benefits under the Acts of 1916, 1917, and 1918 because they were not under those Acts considered to be in necessitous circumstances.

The Act of 1919 gave the widows of deceased *prior* law beneficiary miners the choice between a monthly life pension and a monthly instalment out of the unpaid balance of a *prior* law lump-sum award. A certain number of widows preferred the instalment to the pension. The lump sums subsequently became exhausted, and these widows were then unable to get the monthly pensions.

The Act of 1919 made no provision for the South African born widows of deceased beneficiary miners who left South Africa many years ago and died oversea. These women and children went oversea with their moribund husbands and fathers, and they were therefore not resident in South Africa when these beneficiary miners died. They were therefore debarred from receiving benefits owing to their enforced absence from South Africa.

The Act of 1925 provides a monthly allowance automatically to the dependents of *prior* law as well as *present* law pensioners after their death, irrespective of the cause of death.

The Act of 1925 provides that the oversea dependents of a *prior* law pensioner shall receive the balance up to £750 after his death if the pensioner received in allowances less than £750 before he died.

The Act of 1925 contains the same provision as regards benefits to the oversea dependents of a *present* law pensioner. Oversea dependents of both classes of pensioners are now on a level footing.

The 1925 Act provides a monthly pension to the widow of a *prior* law as well as of a *present* law beneficiary miner if such miner died from silicosis or if silicosis contributed to his death. Dependents of both classes are now on a level footing.

The 1925 Act will restore the benefits under the Acts of 1916, 1917, and 1918 if the miner returned to South Africa before the 1st of July, 1924, and has been resident in South Africa since the date of such return to the date of the award.

The Act of 1925 makes provision for these *prior* law beneficiary miners by levelling up the awards of primaries and pure tuberculotics to £532. 10s. and the awards of ante-primaries to £355. Such levelling up is based on earnings at £30 per month. It is estimated that this scheme will cost approximately £500,000.

The Act of 1925 provides for the levelling up of all these awards from £375 and £400 to £750, and will restore the position to all secondary stage and complicated *prior* law beneficiary miners without any residential restrictions. There are approximately 800 such cases to be levelled up, and it is estimated that the cost involved will be in the neighbourhood of £300,000.

Where the beneficiary miner to be levelled up has died either in South Africa or oversea, the relatives of such deceased miner will be eligible to receive the benefits which the deceased miner was entitled to had he not died, but such relatives must be able to prove that they were dependent upon the deceased miner.

The Act of 1925 will give benefits to these widows who were excluded from the 1919 Act, provided that the Medical Bureau certifies that their late husbands died from silicosis or that silicosis was present in the causation of their death. There are many such widows, but the few who would be assisted have had a hard struggle in the past few years.

The Act of 1925 will include benefits to these twelve widows. It is considered inequitable to withhold benefits from a widow whose husband during his lifetime was a saving or a thrifty man.

The Act of 1925 will, under certain conditions, restore the monthly pension to these widows who subsequently found out that they had made the wrong choice under the 1919 Act. The Board was in no way to blame in this matter. The widows had the right to choose and they preferred a larger monthly instalment to a smaller monthly pension. The instalments were bound to peter out eventually, while the monthly pension was for life.

The Act of 1925 provides for this class of dependents under certain conditions, one of which is that they must have returned to South Africa within two years of the date of death of their husbands and have not since the date of their return left South Africa for any purpose whatever.

The Act of 1919 made inadequate provision for safeguarding the interests of certain beneficiary miners who went on active service or who did work of national importance oversea during the 1914–18 war, and who were prevented thereby from returning to South Africa within a prescribed period.

The Act of 1919 made no provision for working miners who went oversea as volunteers and who subsequently returned to South Africa. These miners could not get benefits from the Military Special Pensions Board, neither could they get compensation from the Miners' Phthisis Board. If such miners were disabled by any lung diseases, they were in the past placed between two stools and did not know who should assist them.

The Act of 1919 made no provision whatever for the exemption from income tax assessment of amounts paid in lump sums or monthly pensions to miners and their dependents who are beneficiaries of the Board. This was a very great hardship.

The Act of 1919 made no provision for widows and other dependents on their remarriage. The monthly pensions to widows ceased and determined on their remarriage, while the allowances to any children under sixteen years were continued until they attained the age of sixteen years.

The Act of 1919 provided compensation to miners who contracted silicosis on any *outside* mines in the Union, but such compensation had to be paid by the Government out of public revenue. This is quite wrong in principle, because compensation for an occupational disease should form a first charge upon the mine or mines responsible for the contraction of the disease.

The Act of 1919 did not make any provision for a man who contracts or has contracted silicosis and who only worked part of his time underground and part of his time on the surface at a scheduled mine, that is, the man who worked less than 100 hours per month underground.

The Act of 1925 gives the Board discretionary power to extend any prescribed period and to reconsider the claims of a certain number of persons who had already returned to South Africa. The Board will, however, not have power to consider any claims of people who are still oversea at this stage.

The Act of 1925 provides for the establishment of a Joint Medical Board consisting of two doctors from the Medical Bureau, two doctors from the Military Special Pensions Board and a chairman appointed by the Minister of Mines and Industries. (This joint body will attend and have been attending to all these working miners who were volunteers during the Great War. The chairman of this Joint Medical Board is Dr. John van Niekerk.)

Provision was about to be made in the Act of 1925 for all compensation to be exempted from income tax assessment, but the clause was withdrawn in Select Committee because the necessary provision had more suitably been made by the Government in the Income Tax Amendment Act.

The Act of 1925 provides that a widow or other dependent (except a child under sixteen years) who is in receipt of a monthly pension will be entitled to a lump-sum payment in one sum equal to twenty-four months' pension on remarriage, while the allowances to any children under sixteen years will be continued until such children attain the age of sixteen years.

The Act of 1925 makes special provision for miners who contract or have contracted silicosis on any *outside* mine. Where the *outside* mines on which such miners contracted silicosis can afford to pay for the compensation, they will now have to do so. If they cannot afford it and have made no profits, compensation will be paid by the Government. A special fund will be established for this purpose.

The Act of 1925 makes provision for compensating a man who contracts or has contracted silicosis and who has worked less than 100 hours per month underground. This is right in principle because a man may not be a whole-time underground miner and yet contract the disease.

CHAPTER VI.

PRICES AND VARIATIONS IN THE COST OF LIVING.

§ 1. Introductory.

1. **General.**—No adequate measures were taken until January, 1919, to ascertain with regularity as a section of routine statistics the facts relating to prices and the comparative cost of living in various parts of the Union. The only material previously available was that reported upon (1) in January, 1914, by the Economic Commission which referred particularly to the lack of means and authority for collecting the necessary data on a sufficiently comprehensive scale; (2) in 1916 by a Special Commission to inquire into increased costs attributable to the War; and (3) by the Cost of Living Commission appointed in 1917 to inquire further into the rise of prices. Summaries of the reports of the Commissions have been given in previous issues of this *Year Book*; but are not repeated in full, a short reference only being made thereto, as they have been replaced by figures collected from January, 1919, under authority of the *Statistics Act.* These figures include wholesale and retail prices, the former from 1910 and the latter from 1895. Under the same statutory authority a yearly census of rents of habitations was taken to 1923 (from 1918 to 1920 this census was taken at half-yearly intervals). The cost of living at various periods from 1895, as denoted in the various tables given in this Chapter, has been calculated upon data rendered available as the result of the various investigations referred to.

2. **Statistics of Prices and Cost of Living.**—The Economic Commission of 1913 definitely advised the Government to charge itself with the establishment of a section of statistical work covering the principal subjects with which the Commission had been dealing, i.e. prices, rents, the cost of living, and wages, as having a vital interest for the workers and industrialists of the Union, and a direct bearing upon the economic problems which then faced the country, and during succeeding years have faced it more insistently. This Commission and the subsequent Commissions referred to above, which were appointed in 1916 and 1917, found themselves at a disadvantage owing to the absence of statistical data; and comparisons with other Dominions showed that in this particular respect the Union was most unfortunately placed. It was not, however, possible to give effect to the recommendations of the Economic Commission until the latter part of the year 1918, when a section of the Office of Census and Statistics was constituted for the purpose of maintaining a regular service of statistics of this character.

During the period which has since elapsed much has been done to collate such scattered information as was already in existence, mainly consisting of data obtained by various commissions and in particular by the Cost of Living Commission. From January, 1919, the Office of Census and Statistics took over from the last-named Commission the work of preparing and publishing monthly statements as to price movements; and in addition to this work has done everything possible to make good some, at least, of the deficiencies of the past in this branch of statistics, and to initiate a regular and reasonably adequate statistical service.

It was fortunate, however, that the experience of other countries was available; and the Statistical Council in its consideration of a scheme to cover this important subject had before it the experience of Australia (where a highly specialized system has been created by the Commonwealth Statistician), New Zealand, Canada, and the United States of America. In all these countries the matter had received detailed consideration; and statistical methods had been afforded close and critical examination. Thus the system adopted in South Africa, though modified to suit the peculiar circumstances of a country

in which the bulk of the population consists of native and coloured persons, has been very largely borrowed from systems practised elsewhere.

The system has been fully explained in a publication (S.P. 13) issued in August, 1919, which was followed by similar reports issued in subsequent years. The last of this series was issued in 1922 (S.P. 35).

3. **What is an Index Number?**—Queries have frequently been addressed to officers of the Statistical Department on the meaning of index numbers and the method of their construction. A good deal of ignorance seems to prevail on this subject among that portion of the general public not versed in economic literature, and the following note, therefore, tries to give the main points in simple and popular language:—

Index numbers can be used for comparing the changes over a period of time of a great variety of complex facts. For purposes of illustration, we shall use one of the commonest sets of facts in regard to which index numbers are used, viz., Prices.

The level of wages is fixed from time to time by the parties interested, on the basis of the level of prices as then existing. It is consequently a matter of some importance to know the extent to which the level of prices changes from time to time, as large changes of this nature are bound to have an influence on wage agreements. The price level is compounded of a great variety of different prices, and the problem which the index number has been invented to solve may be briefly put thus: How is one to place, say, one ton of coal and one ounce of pepper on a common basis?

This is done by representing the price of each (and of all other commodities) by a figure like 100 or 1000. The change in the price at another time is then represented by a proportional change in the 100 or 1000, the index number. Ultimately an average is taken of the index numbers of the commodities included, thus establishing a "level of prices" for them all.

In view of the fact, however, that it does not necessarily take the same time to consume one ounce of pepper as one ton of coal, steps are taken in most index numbers to-day to increase the importance of some articles by multiplying the figures relating to them by numbers representing roughly their greater importance, and the resulting index number is called a "*weighted*" index number.

The figure for the period taken as starting point to measure the change (represented usually by 1000) is termed the "base."

§ 2. Wholesale Prices.

1. **System of Collection.**—The list of commodities in regard to which prices are collected under the *Statistics Act* comprises 188 articles. A Report on the subject (S.P. 13) contains an explanation of the method of collection. The list of commodities may be extended from time to time should this prove expedient; and prices have been traced back to 1910.

2. **Price Indexes and Prices.**—In calculating price indexes for individual commodities the prices in the year 1910 have been taken for the present as the basis for comparison (1000).

The different groups of wholesale indexes for 1910–1921 have been weighted on the average national consumption basis of three years—1917–1919. For the years 1922, 1923, 1924, and 1925 the consumption basis for the purpose of weighting has been advanced to the average of 1918–1920, 1919–1921, 1920–1922, and 1921–1923 respectively In future, the weighting will be done on the basis of the national consumption for the years 1922 to 1924. Information for arriving at the national consumption has been drawn mainly from the import and export figures and the agricultural and factory censuses.

Price averages are based on quarterly returns furnished by representative firms in Cape Town, Port Elizabeth, East London, and Durban, as representing the coast centres and in Johannesburg as representing the inland centres. The following method of calculating the average price for the Union has been adopted:—

> As regards each town separately, the predominant price or, if there is no predominant price, the actual price nearest to the average of all quotations, is taken as the base price; the arithmetical average of the base prices for the coast towns is then calculated; finally the Union price is obtained by taking the mean between the Johannesburg base price and the average of the base prices for the coast towns.

The indexes for the years since 1919 have been constructed by averaging the indexes for January, April, July, and October in each year.

The following tables give the indexes of groups for a series of years :—

WHOLESALE PRICES—INDEXES OF GROUPS, 1910 TO 1925.

(*Basis—Index Number for* 1910 = 1000 *in the case of each Group.*)

(i) SUMMARY OF GROUP INDEXES.

Year.	All Groups.	Food and Groceries.	Food, Groceries, Fuel, and Light.	Other Groups..	South African Goods.	Imported Goods.
1910.....	**1000**	**1000**	**1000**	**1000**	**1000**	**1000**
1911.....	979	968	970	1009	967	1010
1912.....	1012	1033	1027	980	1011	1013
1913.....	1125	1201	1166	1021	1169	1017
1914.....	1090	1098	1079	1122	1083	1106
1915.....	1204	1177	1156	1333	1154	1325
1916.....	1379	1293	1277	1645	1268	1651
1917.....	1583	1398	1392	2075	1373	2091
1918.....	1723	1448	1450	2380	1419	2464
1919.....	1854	1637	1623	2300	1584	2525
1920.....	2512	2392	2309	2713	2249	3185
1921.....	1805	1560	1582	2191	1527	2501
1922.....	1445	1291	1309	1683	1277	1870
1923.....	1424	1325	1315	1574	1287	1773
1924.....	1448	1391	1373	1513	1339	1716
1925 (July).....	1424	1368	1351	1481	1296	1720

(ii) DETAILED INDEXES OF GROUPS.

Group.	1915.	1919.	1920.	1921.	1922.	1923.	1924.	1925. (July).
I. Metals.....	1696	3198	3339	2607	1651	1568	1517	1389
II. Jute, Leather, Hides and Skins.....	1511	2332	2705	1649	1411	1493	1568	1950
III. Grains, Meal, etc..	1199	1706	2693	1472	1262	1330	1403	1354
IV. Dairy Produce.....	1135	1600	2023	1589	1209	1310	1366	1450
V. Groceries.....	1035	1403	1901	1728	1322	1317	1386	1352
VI. Meat.....	1301	1723	2116	1638	1362	1322	1365	1399
VII. Building Materials.	1195	2084	2445	2082	1630	1477	1380	1287
VIII. Chemicals.....	1278	1424	1271	1261	1178	1082	984	922
IX. Fuel and Light....	990	1510	1658	1743	1454	1247	1244	1232
X. Soft Goods*.....	1362	3255	4418	3324	2361	2285	2196	2160
XI. Miscellaneous.....	1275	2475	3174	2899	2029	1732	1720	1688
ALL GROUPS.....	1204	1854	2512	1805	1445	1424	1448	1424

* As consumption of articles included in Group X cannot be estimated, indexes for this group hav been arrived at by taking the arithmetical average of the indexes for individual commodities.

§ 3. Retail Prices.

1. **System of Collection.**—Monthly quotations are obtained from fifty-seven towns, including six towns in South-West Africa. Retail dealers, fully representative of their locality and of good standing, have been selected in each town, and are required to render quotations each month in respect of articles dealt with by them during that period. The practice followed is to require that the return shall quote the retail, over-the-counter, selling price of each article named therein, or of that brand or grade of such article most commonly in demand. The price, in other words, is the actual price predominating in the bulk of the month's sales of each article specified.

The arithmetical average of the quotations in respect of each town in the case of the principal towns, and otherwise of each area (see following paragraph), is used in constructing the index number. (For method applied prior to 1926, see previous issues of this Year Book.)

2. **Price Indexes.**—Price indexes are given for the nine principal towns of the Union regarded as a whole in table (i) (*a*) representing relative prices of commodities in various groups. These figures are used as a basis of the graph included in this section. Similar information for 1919 and later years is given in tables (i) (*b*) and (*c*) for the seven regions into which the Union has been mapped for the purpose. Indexes are given in table (ii) showing the relative cost of food in the nine principal town from 1910. Particulars are given in table (iii) of average prices from 1895 of retail commodities in the nine principal towns of the Union regarded as a whole, and, from 1919 onwards, in the seven regions referred to. These prices have been used for the calculation of the indexes in table (i). The price for each town has been weighted according to the white population in order to secure the average for all towns. The towns enumerated in each region are as follows :—

REGIONAL DIVISIONS OF THE UNION FOR THE PURPOSE OF STATISTICS RELATING TO RETAIL PRICES AND THE COST OF LIVING.

Division.	Towns and Areas from which Price Quotations are Received.
I. Coastal.....	Cape Peninsula, Port Elizabeth, East London, Durban, Mossel Bay, Uitenhage.
II. South (Non-Coastal).	Paarl, Oudtshoorn, Grahamstown, Queenstown, Cradock, Umtata.
III. Central.....	Kimberley, Beaufort West, Bloemfontein, Kroonstad, Jagersfontein, Aliwal North.
IV. Eastern.....	Pietermaritzburg, Harrismith, Ladysmith, Newcastle, Standerton, Kokstad.
V. Witwatersrand and Pretoria	Johannesburg, Pretoria, Krugersdorp, Germiston, Benoni.
VI. Northern (excluding V)	Ermelo, Pietersburg, Rustenburg, Middelburg, Potchefstroom, Witbank, Vryburg, Mafeking.
VII. North-Western.....	Calvinia, Prieska, Upington.

(i) INDEXES OF RETAIL PRICES OF FOOD, FUEL, AND LIGHT.

(*a*) PRINCIPAL TOWNS FROM 1895 (BASIS, YEAR 1910=1000).

Year.	Group I.		Group II.	Group III.	Groups I, II, and III.	Group IV.	All Groups.
	Cereal Foods.	Other Foods (not Animal Products).	Dairy Produce.	Fresh Meats.	All Foods.	Fuel, and Light.	
1895.....	1049	1094	989	833	990	1389	1044
1900.....	1076	1132	1162	1243	1152	1263	1165
1905.....	934	971	1086	1225	1056	1182	1071
1910.....	1000	1000	1000	1000	1000	1000	1000
1911.....	1149	1097	1033	1109	1093	980	1081
1912.....	1259	1113	1043	1189	1146	946	1125
1913.....	1251	1131	1069	1211	1163	943	1140
1914.....	1322	1086	1098	1133	1148	891	1121
1915.....	1484	1244	1216	1093	1228	888	1192
1916.....	1586	1245	1237	1159	1275	989	1245
1917.....	1763	1499	1356	1241	1418	1022	1376
1918.....	1823	1457	1251	1375	1437	1141	1406
1919.....	1927	1551	1452	1457	1559	1169	1518
1920.....	2814	2079	1914	1740	2049	1379	1979
1921.....	2132	1759	1604	1419	1666	1472	1646
1922.....	1653	1463	1320	1190	1364	1291	1356
1923.....	1564	1547	1313	1138	1344	1201	1329
1924.....	1536	1574	1335	1221	1379	1166	1356
1925 (2nd Quarter).	1652	1497	1421	1233	1413	1139	1383

(*b*) REGIONAL DIVISIONS FROM 1919.

(BASIS, AVERAGE OF NINE TOWNS, YEAR 1910 = 1000).

Year.	Group I.		Group II.	Group III.	Groups I, II, and III.	Group IV.	All Groups.
	Cereal Foods.	Other Foods (not Animal Products).	Dairy Produce.	Fresh Meats.	All Foods.	Fuel and Light.	
1919.....	1934	1561	1388	1445	1540	1209	1506
1920.....	2783	2088	1817	1745	2020	1405	1955
1921.....	2137	1791	1488	1363	1622	1520	1612
1922.....	1682	1481	1250	1143	1336	1374	1342
1923.....	1602	1578	1251	1120	1333	1286	1329
1924.....	1564	1598	1277	1187	1361	1255	1350
1925 (2nd Quarter).	1687	1522	1346	1221	1399	1228	1381

(*c*) DETAILED INDEXES OF REGIONAL DIVISIONS, 1924.

I. Coastal.....	1534	1586	1363	1252	1399	1280	1387
II. South (Non-Coastal)...	1603	1624	1217	1139	1339	1628	1373
III. Central.....	1604	1609	1147	1101	1304	1244	1299
IV. Eastern.....	1516	1706	1142	1214	1345	1242	1334
V. Witwatersrand and Pretoria	1539	1555	1343	1203	1372	1085	1340
VI. Northern.....	1687	1655	1110	1122	1325	1383	1333
VII. North-Western	1807	1809	1146	859	1297	1463	1316

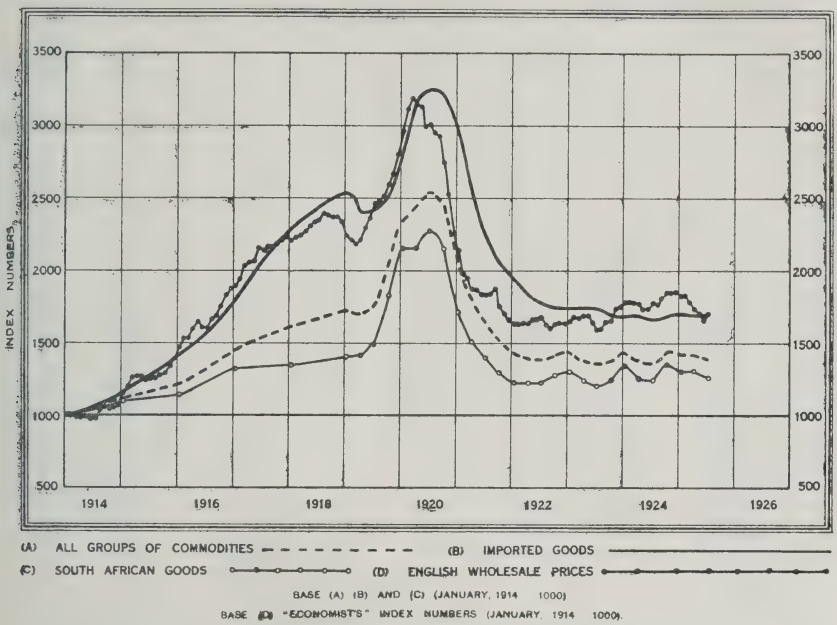
(ii) INDEXES OF RETAIL PRICES OF FOOD IN NINE TOWNS FROM 1910.

(BASIS OF TABLE—AVERAGE OF NINE TOWNS IN 1910=1000).

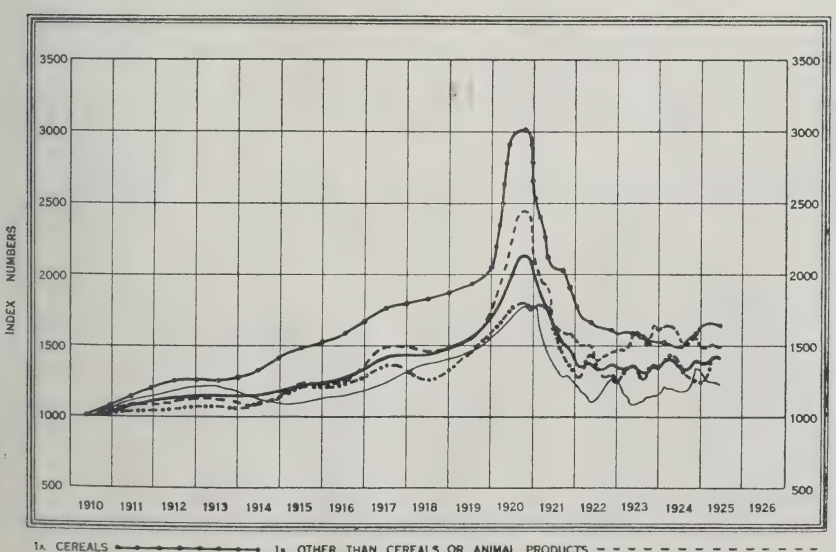
Year.	Cape Town.*	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Johannesburg.*	Bloemfontein.	Weight'd Average.
1910..	870	1014	915	868	934	1020	1139	1060	954	1000
1911..	1047	1067	1010	1124	990	1099	1174	1121	1006	1093
1912..	1073	1072	1038	1168	990	1096	1231	1215	1039	1146
1913..	1100	1073	1053	1275	990	1113	1228	1229	1032	1163
1914..	1088	1089	1047	1280	1042	1093	1257	1187	1115	1148
1915..	1208	1260	1137	1212	1124	1127	1381	1248	1182	1228
1916..	1233	1245	1143	1236	1276	1240	1332	1319	1172	1275
1917..	1356	1491	1292	1260	1428	1483	1563	1426	1339	1418
1918..	1348	1430	1361	1383	1464	1512	1561	1456	1365	1437
1919..	1520	1643	1496	1489	1495	1564	1648	1570	1505	1559
1920..	1978	2183	1982	1999	2007	2072	2141	2062	2009	2049
1921..	1639	1682	1608	1499	1674	1719	1729	1680	1548	1666
1922..	1338	1288	1274	1256	1352	1432	1447	1375	1289	1364
1923..	1335	1275	1288	1267	1353	1420	1453	1331	1293	1344
1924..	1389	1407	1307	1304	1364	1436	1433	1363	1316	1379
1925 (2nd Quarter.)	1430	1496	1371	1300	1472	1464	1416	1394	1345	1413

* Cape Town includes Wynberg. Johannesburg includes other Reef Towns.

GRAPH SHOWING THE TREND OF WHOLESALE PRICES OF COMMODITIES IN SOUTH AFRICA AND THE CORRESPONDENCE BETWEEN THE PRICES OF IMPORTED GOODS AND OF ENGLISH WHOLESALE PRICES.



RETAIL PRICE OF FOOD, 1910, TO JUNE, 1925—PRINCIPAL TOWNS.



(iii) WEIGHTED AVERAGE OF PREDOMINANT RETAIL PRICES OF FOOD, FUEL, AND LIGHT IN SIX TOWNS FROM 1895 TO 1909, IN NINE TOWNS FROM 1910, AND IN SEVEN DIVISIONS FROM 1919.

Year.	Bread.	Flour (Ordinary White).	Oatmeal. (S.A.)	Rice.	Tea.	Coffee (Ground).	Condensed Milk.
	lb.	25 lb.	lb.	lb.	lb.	lb.	14-oz. tin.
	d.	s. d.	d.	d.	s. d.	s. d.	s. d.
1895	2·75	4 5	3·8	2·5	1 10	1 6	5·8
1900	3	4 5·5	3·25	2·75	1 11	1 2·5	6·5
1905	2·75	3 8	3·5	2·75	1 9	1 1	6
1910	2·75	4 0	4	3	1 10	1 3	6
1911	2·92	4 11·5	3·9	3·18	1 10·8	1 4·9	6·4
1912	2·92	5 9·25	3·9	3·18	1 10·8	1 4·9	6·5
1913	2·91	5 7·75	4·01	3·16	1 11·1	1 5·4	6·6
1914	2·95	5 11·2	4·1	2·9	2 1·8	1 5·9	6·7
1915	3·20	6 10·4	5·1	3·3	2 0·9	1 7·3	7·8
1916	3·25	7 6	5·3	3·4	2 5·2	1 9·1	9·3
1917	3·75	8 1·5	6·8	4·4	2 2·6	1 7·2	11·4
1918	3·96	8 4·5	6·36	5·16	2 2·5	1 7·3	1 1·8
1919, Nine Towns	4·27	8 7·9	6·4	6·1	2 3·6	1 9·1	1 2·6
Seven Divisions.	4·31	8 8·4	6·7	6·1	2 4·4	1 9·5	1 2·8
1920, Nine Towns	6·33	12 7·8	7·9	9·4	2 9·8	1 11·6	1 5·2
Seven Divisions.	6·23	12 9	8·1	9·4	2 11·2	2 0·4	1 5·8
1921, Nine Towns	5·03	9 9·3	7·4	5·2	2 5·6	1 9·2	1 5·3
Seven Divisions.	5·02	9 10	7·7	5·2	2 6·8	1 9·6	1 5·7
1922, Nine Towns	3·90	7 5·5	5·6	4·5	2 5·8	1 7·4	1 0·1
Seven Divisions.	4·00	7 10·1	5·8	4·4	2 8	1 7·6	1 0·8
1923, Nine Towns.	3·64	7 0·8	5·2	4·1	2 9·6	1 6·7	10·4
Seven Divisions	3·78	7 2·6	5·4	4·1	2 10·8	1 7·1	11
1924, Nine Towns.	3·63	6 10·1	5·1	4·1	2 10	1 7·5	10·4
Seven Divisions.	3·69	7 0·2	5·3	4	2 11·1	1 7·7	10·9
1925 (2nd Quarter) Nine Towns...	3·90	7 5·2	4·8	4	2 11·6	1 10·6	10·2
Seven Divisions.	4·04	7 7·2	5·2	4	3 1	1 10·4	10·7

Year.	Sugar.	Golden Syrup.	Jam. (S.A.)	Candles.	Potatoes.	Paraffin.	Coal.
	lb.	lb.*	lb.*	lb.	12 lb.	Gal.	100 lb.
	d.	d.	d.	s. d.	s. d.	s. d.	s. d.
1895	3·25	4·5	6	10	1 0·8	2 5	1 11·5
1900	3·50	4·5	6	8·5	1 3·5	1 11	1 11·5
1905	3	4·5	6	7	10·5	1 7·5	1 11·5
1910	3	3·5	6	7	11	1 6·5	1 6·3
1911	3	3·8	6·2	7·3	1 3	1 4·4	1 6
1912	3·06	3·8	6·2	7·2	1 4	1 4·2	1 5·5
1913	2·94	3·8	6·1	6·9	1 5·3	1 4·4	1 5·5
1914	2·75	4·1	6·3	6·2	11·5	1 4·2	1 4·7
1915	3·25	5·5	6·6	6·5	1 4·8	1 6·7	1 4·2
1916	3·50	6·1	6·3	10·3	10·8	1 9·9	1 4·8
1917	5·20	7·5	7·7	10·3	1 8·4	2 0·3	1 4·8
1918	4·20	7·8	8·5	1 1·5	1 10·4	2 5·1	1 5·9
1919, Nine Towns	4·27	8·0	8·3	1 3·4	2 2·2	2 8·5	1 5·1
Seven Divisions.	4·26	8·3	8·5	1 3·2	2 2·2	2 9·2	1 5·5
1920, Nine Towns	6·41	10·8	10·4	1 4·3	3 4·5	3 0·4	1 9·2
Seven Divisions.	6·24	11·1	10·8	1 4·4	3 4·1	3 1·1	1 8·9
1921, Nine Towns	6·32	10·6	10·2	1 1·4	1 11·6	3 2	1 11·4
Seven Divisions.	6·41	10·9	10·6	1 1·5	1 11·7	3 2·4	2 0
1922, Nine Towns	4·47	8·1	8·9	11	1 7·8	2 3·8	1 8·8
Seven Divisions.	4·52	8·3	9·2	11·2	1 7·7	2 4·2	1 9·7
1923, Nine Towns.	4·74	7·7	8·4	8·2	1 11·6	2 0	1 8·1
Seven Divisions	4·91	8·0	8·7	8·4	1 11·1	2 0·4	1 8·8
1924, Nine Towns.	4·71	7·2	8·8	8·5	2 0·2	1 11·9	1 8
Seven Divisions.	4·81	7·6	9·1	8·9	2 0·1	2 0·2	1 8·7
1925 (2nd Quarter) Nine Towns...	4·09	6·7	8·7	8·9	1 5·7	1 11·5	1 8·1
Seven Divisions.	4·19	7·2	8·9	8·9	1 6	1 11·9	1 8·9

* In 2-lb. tins.

(iii) WEIGHTED AVERAGE OF PREDOMINANT RETAIL PRICES OF FOOD, FUEL, AND LIGHT IN SIX TOWNS FROM 1895 TO 1909, IN NINE TOWNS FROM 1910, AND IN SEVEN DIVISIONS FROM 1919—(*continued*).

Year.	Butter. lb.	Cheese. lb.	Bacon. lb.	Eggs. doz.	Fresh Milk. pt.	Beef. lb.	Mutton. lb.
	s. d.	s. d.	s. d.	s. d.	d.	d.	s. d.
1895	1 9·5	1 4	0 10·8	1 6	2·50	6·3	5·5
1900	2 0·3	1 3·3	1 2·5	2 2	3	9·3	8·3
1905	2 0	1 1	1 2	1 11	2·75	9	8·3
1910	1 6	1 3	1 4	1 5	3·20	7·2	6·8
1911	1 8·6	1 2·3	1 4·4	1 9·6	3	7·9	7·6
1912	1 9·2	1 3	1 4·4	1 10·4	3	8·5	8·1
1913	1 8·6	1 2·6	1 5·9	2 1·4	3	8·7	8·3
1914	1 8·3	1 2·5	1 5	2 4·1	3	7·9	7·3
1915	1 8·4	1 5·1	1 6·5	2 0·4	3·10	7·5	8·3
1916	1 11·9	1 5·9	1 8	2 6·3	3·25	8	8·4
1917	1 10·2	1 8·9	1 9	2 6	3·60	8·3	9
1918	2 0·3	1 7·1	1 10·6	2 3·3	3·40	9·3	10·3
1919, Nine Towns	2 9·9	1 8·3	2 0	2 8·1	3·66	9·3	11·4
Seven Divisions.	2 9·1	1 8·7	1 11·8	2 5·5	3·52	9·4	11·1
1920, Nine Towns	3 3	2 5·9	2 7·8	3 4·6	5·28	10·5	1 2·3
Seven Divisions.	3 2·5	2 7	2 7·2	3 0·8	4·91	10·8	1 2·1
1921, Nine Towns	2 4·9	1 8·6	2 5·5	2 9·6	4·60	9·3	10·9
Seven Divisions.	2 3·6	1 9·1	2 5·6	2 6·7	4·13	9·1	10·3
1922, Nine Towns	2 0·1	1 5·4	2 0·5	2 2·4	3·87	7·6	9·3
Seven Divisions.	1 11·3	1 5·7	2 0·8	2 0·5	3·58	7·4	8·8
1923, Nine Towns.	2 2·6	1 7·9	1 11	2 0·4	3·82	6·9	9·3
Seven Divisions	2 2·0	1 8·2	1 11·5	1 11·3	3·53	7·0	9·0
1924, Nine Towns..	2 3	1 6·9	1 10	2 2·7	3·85	7·3	10·1
Seven Divisions	2 2·4	1 7·8	1 10·5	2 1·3	3·58	7·3	9·7
1925 (2nd Quarter)							
Nine Towns...	2 1·6	1 5	2 0·1	3 1·7	3·83	7·3	10 3
Seven Divisions.	2 0·4	1 5·5	2 0·6	2 11·5	3·55	7·2	10·2

§ 4. Housing and Rents.

1. **Rent Legislation.**—A *Rents Act* was passed by Parliament in 1920, with effect from June of that year until the 30th June, 1921, and was re-enacted annually until 1924, when it was made permanent by Act No. 29. A summary of the original Act, which provided for the constitution of rent boards with power to order the reduction of rents, was given in the sixth and previous issues of this *Year Book*.

2. **Housing Loans Funds.**—The total amount voted by Parliament for the establishment of Housing Loans Funds in the different Provinces under the *Housing Act* of 1920 (see previous issues of this *Year Book*) was £2,381,000 (to the 31st March, 1925), and on this basis the Central Housing Board, from the date of its inception to the 31st December, 1924, approved a number of municipal housing schemes and housing loan applications involving a total commitment of £1,821,228. Particulars are given in the appended tables which show (i) the position as regards house construction and loans authorized under the Act in each of the Provinces, and (ii) the extent to which advantage was taken of the facilities provided by the Act in certain urban centres. It is to be noted that financial stringency led, in 1921, to the considerable curtailment and subsequently to the suspension of the programme contemplated under the Act.

(i) **HOUSING ACT—CONSTRUCTION AND LOANS AUTHORIZED AND ISSUES MADE FROM HOUSING LOANS FUNDS IN EACH PROVINCE TO 31st DECEMBER, 1924.**

Province.	Municipal Schemes and Dwellings.	Housing Loans.	Total Loans.	Total Issues.	Dwellings for Occupation by		
					Europeans.	Natives and Coloured.	Total.
	£	£	£	£			
Cape	372,519	233,917	606,436	529,688	540	954	1,494
Natal	361,700	24,957	386,657	350,238	315	—	315
Transvaal	141,957	379,598	521,555	465,117	440	827	1,267
Orange Free State	59,025	247,555	306,580	259,122	250	839	1,089
UNION...£	935,201	886,027	1,821,228	1,604,165	1,545	2,620	4,165

(ii) HOUSING LOAN SCHEMES AND APPLICATIONS APPROVED IN CERTAIN URBAN CENTRES TO 31st DECEMBER, 1924.

	Municipal Schemes.			Individual Construction.	
	Number of Houses.		Advances Approved.	Number of Houses.	Loans Approved.
	For Europeans.	For Natives and Coloured.			
	No.	No.	£	No.	£
Cape Town	1	36	16,335	64	72,035
East London	32	281	65,704	30	28,439
Pinelands Garden City	107	—	91,960	—	—
Kimberley	86	223	82,061	3	3,200
Port Elizabeth	120	100	148,454	16	17,458
Durban	288	—	361,700	12	13,300
Pretoria	11	183	45,675	113	137,571
*Witwatersrand	4	481	70,366	198	159,761
Bloemfontein	22	800	57,400	132	179,975

* Benoni, Brakpan, Germiston, Krugersdorp, Roodepoort-Maraisburg, and Springs.

3. **Building Plans Passed in Urban Areas.**—The following tables give particulars of building plans passed in urban areas in the Union during 1923-24 and by certain principal municipalities over a period of years :—

(i) URBAN AUTHORITIES—NUMBER OF BUILDING PLANS PASSED WITH ESTIMATED VALUE OF BUILDINGS TO BE ERECTED, OF ALTERATIONS TO EXISTING BUILDINGS, AND NUMBER OF DWELLING HOUSES ACTUALLY COMPLETED DURING THE YEAR 1923-24.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
New Buildings—					
Plans Passed.....No.	2,185	797	7,119	512	10,613
Estimated value of buildings £	2,026,179	932,129	966,293	280,848	4,205,449
Alterations to existing buildings—					
Plans Passed.....No.	2,551	403	2,408	643	6,005
Estimated value of alterations.....£	540,536	196,657	147,682	64,212	949,087
Total—					
Plans Passed.....No.	4,736	1,200	9,527	1,155	16,618
Estimated value.....£	2,618,605*	1,128,786	3,555,528†	358,797‡	7,661,716
New dwelling-houses completed during year.....No.	1,211	510	2,126	369	4,216

* Includes new buildings and alterations valued at £51,890, which cannot be sub-divided owing to lack of detailed information.

† Including new buildings and alterations valued at £2,441,553, which cannot be sub-divided owing to lack of information.

‡ Including new buildings and alterations valued at £13,737, which cannot be sub-divided owing to lack of information.

(ii) PLANS PASSED, ESTIMATED VALUE OF BUILDINGS TO BE ERECTED, AND OF ALTERATIONS TO EXISTING BUILDINGS, AND THE NUMBER OF NEW DWELLING HOUSES COMPLETED, 1921–22 TO 1923–24.

Town.	Number of Plans Passed during Year.			Estimated Value of Plans Passed during Year.			Number of Dwelling Houses Actually Completed.		
	1921–22.	1922–23.	1923–24	1921–22.	1922–23.	1923–24.	1921–22.	1922–23.	1923–24.
	No.	No.	No.	£	£	£	No.	No.	No.
Cape Town..	1,152	1,880	1,981	947,815	1,411,325	1,382,770	239	324	396
East London	217	218	247	99,985	127,677	154,045	13	24	16
Kimberley...	196	142	182	90,920	43,640	43,430	21	12	20
Port Elizabeth	151	165	294	90,605	142,684	213,052	4	29	56
Durban.....	1,292	845	732	829,279	771,360	911,712	364	350	397
Pietermaritzburg.....	207	248	251	89,647	138,589	134,223	*	*	51
Benoni.....	255	176	154	174,785	145,355	84,014	177	58	64
Boksburg....	128	99	96	84,056	31,539	25,669	21	16	27
Germiston...	153	118	145	81,730	50,125	70,853	86	36	60
Johannesburg	2,059	7,658	7,486	2,042,500	2,466,124	2,441,553	*	1,035	1,227
Krugersdorp.	113	106	124	34,280	44,265	50,223	26	23	37
Pretoria.....	643	698	468	361,395	579,695	380,295	205	299	283
Roodepoort–Maraisburg	63	67	75	30,250	27,433	27,175	25	22	17
Bloemfontein	219	274	194	134,385	183,767	109,300	88	58	58

* Not available.

4. **Censuses of Rents.**—The first inquiry of this kind held by the Census and Statistics Office under the Statistics Act, 1914, was undertaken during the month of August, 1918, in the nine largest centres of the Union. Altogether, some 20,000 returns as to rented houses were obtained in these areas, distributed between agents and owners on the one hand and occupiers on the other, the latter obtained by a house-to-house canvass by specially appointed enumerators.

Care was taken to secure uniformity of system in collecting information in each town, and attention was specially directed to typical houses in the main residential localities. To this end the houses in each area (i.e. the bulk of the houses with the exclusion of the highest and poorest types) were graded into three general classes, representing (i) houses of better type in ordinary residential localities, (ii) houses of average type in medium residential localities, and (iii) houses in poorer localities or of poorer type. Houses were classed according to the number of rooms, and rents of houses of less than three rooms or more than six rooms were excluded.

It was decided that censuses of rents should be taken every six months, and a second census was taken in respect of March, 1919, returns on this occasion being asked for only from agents and owners of rented houses. This method was employed in all the nine principal towns up to and including March, 1921.

So far as the larger towns were concerned, there was found but little to criticize as regards the method of collecting details of rents from owners and agents above referred to, the houses dealt with by house agents being sufficiently numerous to provide a reasonably true average of all houses. In the case of the smaller towns, however, where comparatively small numbers of houses were dealt with by agents, this system was not so successful. Again, in the case of towns of lesser importance to which the system of collection of rent data through owners and agents could not be applied, other sources of information had to be resorted to with not very satisfactory results. It was, therefore, found necessary to institute, save in the largest towns, Cape Town and Johannesburg (Witwatersrand), a census of rented houses through the medium of the post, and the same system was adopted in the case of all smaller towns. The first complete census through the post was held in March, 1922.

It may also be mentioned that in the case of some of the smaller towns the method of direct enumeration was employed in connexion with the last annual census.

Seeing that there was every indication that rents, generally speaking, were becoming more stabilized, it was considered advisable to substitute for the half-yearly investigations taken up to March, 1921, an annual rent census on a more complete scale. The last annual census was held in March, 1925.

As previously indicated, investigation was also made as to rentals of habitations in various other towns in the seven regions of the Union, utilized for statistics of the cost of living, and particulars as to the predominant rentals in the nine principal towns and seven regional divisions are given hereunder. The figures represent the results of censuses of rents of habitations occupied by Europeans.

(i) INDEXES OF RENTS OF HOUSES OF THREE TO SIX ROOMS IN (*a*) NINE PRINCIPAL TOWNS AND (*b*) SEVEN REGIONAL DIVISIONS, 1910 TO 1925.

Basis of Tables—Average for 1910 = 1000.

(*a*) NINE PRINCIPAL TOWNS.

YEAR.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Average.
1910.....	680	752	733	783	716	801	1210	1204	1153	1000
1911.....	681	709	630	835	678	789	1294	1200	1143	1002
1912.....	684	717	768	851	692	855	1342	1211	1154	1020
1913.....	723	740	777	874	710	885	1315	1205	1194	1029
1914.....	751	803	833	847	761	922	1291	1191	1222	1034
1915.....	782	793	834	743	753	933	1230	1120	1187	998
1916.....	823	813	852	572	772	956	1217	1094	1185	990
1917.....	848	828	868	708	781	974	1201	1098	1206	1003
1918—										
January.....	864	849	895	799	803	1013	1259	1161	1232	1051
August.....	906	868	931	824	821	1061	1329	1185	1268	1084
1919—										
March.....	896	849	928	876	815	1075	1340	1207	1284	1096
August.....	910	859	960	919	835	1136	1423	1247	1301	1135
1920—										
March.....	952	883	1006	976	882	1202	1493	1320	1312	1194
August.....	956	888	1018	993	927	1234	1558	1335	1312	1203
1921—										
March.....	951	898	987	1008	932	1236	1584	1335	1328	1204
1922—										
March.....	954	888	1019	950	927	1294	1596	1399	1411	1240
1923—										
July.....	987	881	1060	986	961	1384	1634	1438	1525	1283
1924—										
July.....	1022	910	1098	1002	966	1391	1622	1436	1563	1294
1925—										
March.....	1048	920	1147	977	988	1420	1640	1434	1513	1303

(*b*) SEVEN REGIONAL DIVISIONS.

YEAR.	I. Coastal.	II. Southern (Non-Coastal).	III. Central.	IV. Eastern.	V. Witwatersrand and Pretoria.	VI. Northern.	VII. North-Western.	Union.
1918.....	907	566	763	713	1193	728	695	918
1919.....	935	598	803	754	1245	797	734	960
1920.....	989	662	883	835	1349	936	814	1043
1921.....	1002	678	903	856	1376	971	835	1064
1922—March....	1020	694	892	861	1432	967	816	1088
1923—July.....	1063	726	922	875	1471	952	809	1120
1924—July.....	1090	752	942	893	1467	948	835	1133
1925—March....	1116	738	930	934	1469	975	864	1143

The upward tendency of rents was to some extent maintained to March, 1922, but relatively the increase was still below the rise in food prices on the 1910 basis, although the latter fell by 35 per cent. since October, 1920. Building costs continued to be high, and as new houses were built, their rents tended to be higher than those of existing dwellings.

The figures resulting from the March, 1925, rent census show only a very slight average increase as compared with those for the previous year, less than 1 per cent. This is due to the inclusion of rented houses built since May, 1923. This feature was particularly noticeable in East London, where a large proportion of the new houses were built in the best neighbourhoods. In Pretoria, if new houses had not been included, there would have been a slight fall instead of a slight rise in the average rent. The fall in the case of Bloemfontein is probably due to the increase in owner-occupation, which was especially marked in the case of new houses. In the case of a number of the smaller towns included in the calculations for seven regional divisions, where the postal rent census was not thought to be satisfactory, the method of direct enumeration was adopted.

(ii) PREDOMINANT MONTHLY RENTS OF HOUSES OF THREE TO SIX ROOMS IN (*a*) NINE PRINCIPAL TOWNS AND (*b*) SEVEN REGIONAL DIVISIONS, 1910 TO 1925.

(*a*) NINE PRINCIPAL TOWNS.

Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Average.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1910...	3 10 3	3 17 8	3 15 8	4 0 10	3 13 11	4 2 9	6 4 11	6 4 4	5 19 1	5 3 3
1911...	3 10 4	3 13 3	3 15 1	4 6 2	3 10 0	4 1 5	6 13 7	6 3 11	5 18 0	5 3 6
1912...	3 10 8	3 14 0	3 19 3	4 7 10	3 11 6	4 8 3	6 18 7	6 5 0	5 19 2	5 5 4
1913...	3 14 8	3 16 5	4 0 2	4 10 3	3 13 4	4 11 5	6 15 9	6 4 5	6 3 4	5 6 3
1914...	3 17 6	4 2 11	4 6 0	4 7 5	3 18 7	4 15 2	6 13 4	6 3 0	6 6 2	5 6 10
1915...	4 0 9	4 1 10	4 6 1	3 16 8	3 17 9	4 16 4	6 7 0	5 15 8	6 2 7	5 3 0
1916...	4 5 0	4 3 11	4 7 11	2 19 1	3 19 8	4 18 8	6 5 8	5 13 0	6 2 4	5 2 2
1917...	4 7 7	4 5 6	4 9 6	3 13 1	4 0 8	5 0 7	6 4 0	5 13 4	6 4 6	5 3 7
1918—										
Jan...	4 9 2	4 7 8	4 12 5	4 2 6	4 2 11	5 4 7	6 10 0	5 19 11	6 7 3	5 8 6
Aug..	4 13 6	4 9 6	4 16 1	4 5 1	4 4 9	5 10 3	6 16 3	6 2 4	6 10 11	5 11 11
1919—										
Mar..	4 12 6	4 7 9	4 15 10	4 10 5	4 4 2	5 11 0	6 18 3	6 4 8	6 12 7	5 13 2
Aug..	4 13 11	4 8 8	4 19 2	4 14 11	4 6 3	5 17 4	7 6 11	6 8 9	6 14 4	5 17 1
1920—										
Mar..	4 18 4	4 11 2	5 3 10	5 0 9	4 11 1	6 4 2	7 14 3	6 16 4	6 15 6	6 3 4
Aug..	4 18 8	4 11 8	5 5 1	5 2 6	4 15 8	6 7 5	8 0 10	6 17 10	6 15 6	6 4 2
1921—										
Mar..	4 18 2	4 12 9	5 1 11	5 4 1	4 16 3	6 7 7	8 3 6	6 17 10	6 17 1	6 4 4
1922—										
Mar..	4 18 6	4 11 8	5 5 3	4 18 1	4 15 9	6 13 7	8 4 10	7 4 5	7 5 8	6 8 0
1923—										
July..	5 1 11	4 10 11	5 9 5	5 1 10	4 19 3	7 2 11	8 8 9	7 8 6	7 17 6	6 12 5
1924—										
July..	5 5 6	4 14 0	5 13 5	5 3 6	4 19 9	7 3 7	8 7 6	7 8 3	8 1 5	6 13 7
1925—										
Mar.	5 8 2	4 15 0	5 18 5	5 0 11	5 2 0	7 6 7	8 9 4	7 8 1	7 16 2	6 14 7

(*b*) SEVEN REGIONAL DIVISIONS.

YEAR.	I. Coastal.	II. South (Non-Coastal).	III. Central.	IV. Eastern.	V. Witwatersrand and Pretoria.	VI. Northern.	VII. North-Western.	Average for Union.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1918.....	4 13 8	2 18 5	3 18 9	3 13 7	6 3 2	3 15 2	3 11 9	4 14 9
1919.....	4 16 6	3 1 9	4 2 11	3 17 10	6 8 7	4 2 4	3 15 10	4 19 1
1920.....	5 2 1	3 8 4	4 11 2	4 6 3	6 19 4	4 16 8	4 4 1	5 7 8
1921.....	5 3 6	3 10 0	4 13 3	4 8 4	7 2 1	5 0 3	4 6 2	5 9 10
1922—March....	5 5 4	3 11 8	4 12 1	4 8 11	7 7 10	4 19 10	4 4 3	5 12 4
1923—July.....	5 9 9	3 15 0	4 15 2	4 10 4	7 11 11	4 18 4	4 3 6	5 15 8
1924—July.....	5 12 6	3 17 8	4 17 3	4 12 2	7 11 6	4 17 11	4 6 2	5 17 0
1925—March....	5 15 3	3 16 3	4 16 0	4 16 5	7 11 8	5 0 8	4 9 2	5 18 0

5. **Rent Returns at Population Censuses.**—At the 1921 Population Census, as at the 1918 Census, data were gathered as to ownership (private or otherwise) of dwellings, numbers of dwellings, and occupants and rents of private dwellings (3 to 6 rooms). The inquiry was limited to the urban areas of the Union. In the rural districts the housing question does not present a problem of great difficulty, particularly in a country possessing the favourable climatic conditions prevailing in South Africa.

A summary of the results derived from this investigation was given in the sixth issue of this *Year Book*. A full analysis of the data is contained in the Report on the Population Census of 1921, issued by the Census Office in 1924.

§ 5. Cost of Living.

1. **General.**—Statistics as to variations in the cost of living were published monthly by the Cost of Living Commission from December, 1917, to December, 1918; after which date the monthly statements were superseded by statistics of prices compiled by the Census and Statistics Office. Full information regarding the methods of compilation is given in annual reports dealing with wholesale and retail prices, rents, and the cost of living, and also in previous editions of this *Year Book*.

It is necessary to emphasize the point that while the figures published purport and do in fact measure with a reasonable degree of accuracy *variations* in the cost of living according to the European standard, they do not indicate either a minimum or maximum standard. Their value is relative and they provide means for comparing the average cost of living at different times and furnish other data which can be applied to questions affecting the cost of living; but they do not, as often they are wrongly supposed to do, give a direct index of the cost of living of any particular class.

By the latter part of 1920 sufficient information had been collected to enable calculations to be made on the basis of national consumption instead of the somewhat arbitrary family budget utilized previously.

The national consumption figures are prepared, as far as possible, on a three years' average (see § 2, par. 2 above) and represent the consumption of food by Europeans and by coloured persons who have adopted a European dietary. The bulk of the maize, kaffir corn, and rice has been excluded, and the consumption of milk has been estimated by recalculating the budget figure in proportion to the European population, with due allowance for the increased use of fresh milk and decreased use of condensed milk. The weight for rent has been obtained by taking the number of European occupants per house in the urban areas and assuming that the same proportion is true for the whole country.

Indexes in the case of the years 1895 to 1909 have been calculated on the budget system. Satisfactory information as to prices was obtainable up to the year 1909 for six towns only. The weighted average of these six towns has been calculated on the proportion of these towns to the nine towns in 1910=1000. On the assumption that the cost of living in Pretoria, Johannesburg, and Bloemfontein in 1895–1909 was in the same proportion to the six towns as in 1910, these figures should give a fair estimate of the average for the Union. Indexes from 1910 have been calculated on the national consumption basis. Table (i) (*b*) gives the same relatives as are contained in Table (i) (*a*) in a somewhat more popular form, showing the changing value of the sovereign calculated as being worth 20s. in 1910. Table (ii) gives figures corresponding to those contained in Table (i) (*a*) and (*b*) in respect of seven regional divisions of the Union for the years 1919 to 1925.

More complete figures for the years preceding 1910 will be found in earlier issues of this *Year Book*.

(i) (a) PRICE INDEXES (RETAIL—FOOD, FUEL, LIGHT, AND RENT)—NINE TOWNS: BASIS—AVERAGE OF NINE TOWNS IN 1910=1000.

(b) PURCHASING POWER OF A SOVEREIGN COMPARED WITH PURCHASING POWER IN NINE TOWNS REGARDED AS A WHOLE IN 1910=20s.

(*a*) PRICE INDEXES.

YEAR.	Cape Town.*	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Johannesburg.*	Bloemfontein.	Weight'd Average.
1895	808	931	1053	1082	804	788	—	—	—	1038
1900	857	1102	1335	1233	1057	1033	—	—	—	1191
1905	861	882	971	1053	951	1041	—	—	—	1080
1910	830	928	876	860	854	943	1156	1109	1037	1000
1911	931	941	924	1028	880	983	1198	1142	1059	1052
1912	956	945	941	1058	885	1005	1249	1191	1083	1088
1913	985	954	953	1127	891	1026	1237	1197	1093	1101
1914	979	982	972	1112	929	1028	1244	1167	1145	1092
1915	1062	1079	1026	1035	960	1054	1294	1173	1177	1126
1916	1096	1082	1038	993	1070	1131	1266	1213	1170	1158
1917	1168	1230	1137	1063	1177	1279	1395	1281	1278	1248
1918	1190	1217	1198	1175	1213	1326	1435	1330	1321	1289
1919	1293	1350	1285	1270	1241	1390	1518	1414	1421	1376
1920	1597	1686	1592	1598	1561	1726	1856	1739	1729	1698
1921	1413	1403	1391	1325	1401	1542	1654	1536	1464	1494
1922	1224	1153	1202	1160	1209	1370	1493	1373	1330	1320
1923	1214	1135	1208	1161	1204	1368	1496	1353	1345	1309
1924	1255	1212	1238	1194	1213	1400	1489	1381	1392	1340
1925 (2nd Quarter)	1285	1270	1291	1192	1278	1421	1478	1395	1411	1361

* Cape Town includes Wynberg. Johannesburg includes other Reef townships.

(*b*) PURCHASING POWER OF A SOVEREIGN.

YEAR.	Cape Town.*	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Johannesburg.*	Bloemfontein.	Weight'd Average.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1895	24 8	21 6	19 0	18 6	24 10	25 5	—	—	—	19 3
1900	23 4	18 2	15 0	16 3	18 11	19 4	—	—	—	16 10
1905	23 3	22 8	20 7	19 0	21 0	19 3	—	—	—	18 6
1910	24 1	21 7	22 10	23 3	23 5	21 3	17 4	18 0	19 3	**20 0**
1911	21 6	21 3	21 8	19 5	22 7	20 4	16 9	17 6	18 11	19 0
1912	20 11	21 2	21 3	18 11	22 7	19 11	16 0	16 10	18 6	18 5
1913	20 4	21 0	21 0	17 9	22 5	19 6	16 2	16 9	18 4	18 2
1914	20 5	20 4	20 7	18 0	21 6	19 5	16 1	17 2	17 6	18 4
1915	18 10	18 7	19 6	19 4	20 10	19 0	15 5	17 1	17 0	17 9
1916	18 3	18 6	19 3	20 2	18 8	17 8	15 10	16 6	17 1	17 3
1917	17 1	16 3	17 7	18 10	17 0	15 8	14 4	15 7	15 8	16 0
1918	16 10	16 5	16 9	17 0	16 6	15 1	13 11	15 1	15 2	15 6
1919	15 5	14 10	15 7	15 10	16 1	14 5	13 2	14 2	14 1	14 6
1920	12 6	11 10	12 7	12 6	12 10	11 7	10 9	11 6	11 7	11 9
1921	14 2	14 3	14 5	15 1	14 3	13 0	12 1	13 0	13 8	13 5
1922	16 4	17 4	16 8	17 3	16 7	14 7	13 5	14 7	15 0	15 2
1923	16 6	17 7	16 7	17 3	16 7	14 7	13 4	14 9	14 10	15 3
1924	15 11	16 6	16 2	16 9	16 6	14 3	13 5	14 6	14 4	14 11
1925 (2nd Quarter)	15 7	15 9	15 6	16 9	15 8	14 1	13 6	14 4	14 2	14 8

* Cape Town includes Wynberg. Johannesburg includes other Reef townships.

(ii) INDEXES FOR SEVEN REGIONAL DIVISIONS OF THE UNION AND AMOUNT REQUIRED TO PURCHASE THAT WHICH IN 1910 COULD HAVE BEEN PURCHASED FOR £1 IN NINE PRINCIPAL TOWNS REGARDED AS A WHOLE (BASIS OF TABLES—AVERAGE COST OF FOOD, FUEL, LIGHT, AND RENT IN NINE TOWNS IN 1910=1000 OR £1).

Year.	I. Coastal.	II. South. (Non-Coastal.)	III. Central.	IV. Eastern.	V. Witwatersrand and Pretoria.	VI. Northern.	VII. North-Western.	Union.
	INDEX FIGURES.							
1919	1316	1164	1252	1190	1440	1228	1173	1316
1920	1630	1470	1544	1522	1779	1526	1454	1634
1921	1433	1244	1292	1332	1560	1362	1275	1422
1922	1244	1092	1147	1163	1395	1217	1116	1256
1923	1238	1114	1151	1164	1381	1216	1132	1253
1924	1283	1151	1173	1179	1397	1202	1144	1278
1925 (2nd Quarter)	1319	1188	1181	1228	1411	1233	1160	1303

PURCHASING POWER OF A SOVEREIGN.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1919	15 2	17 2	16 0	16 10	13 11	16 3	17 1	15 2
1920	12 3	13 7	12 11	13 2	11 3	13 1	13 9	12 3
1921	13 11	16 1	15 6	15 0	12 10	14 8	15 8	14 1
1922	16 1	18 4	17 5	17 2	14 4	16 5	17 11	15 11
1923	16 2	17 11	17 4	17 2	14 6	16 5	17 8	16 0
1924	15 7	17 4	17 1	17 0	14 4	16 8	17 6	15 8
1925 (2nd Quarter)	15 2	16 10	16 11	16 3	14 2	16 3	17 3	15 4

2. **Comparison of Retail Prices in certain Countries.**—The following table gives index numbers of the average retail price of certain commodities in 1914 and December, 1924, for the United Kingdom, Canada, Australia, and New Zealand, with South Africa as the base (1000). It is of interest to note that in the case of food-stuffs before the war the United Kingdom was roughly one-third cheaper than South Africa, but that now the average prices are approximately equal. It is more difficult to obtain comparable figures for rents. The following figures have been utilized :—

South Africa.—The weighted average rent of houses of three, four, five, and six rooms in the nine principal towns

United Kingdom.—Report of the Working Classes Cost of Living Commission (Cd. 8980). Rents paid by skilled artizans and percentage increase shown in the *Ministry of Labour Gezette.*

Canada.—Weighted average rent of six-roomed houses chiefly occupied by workmen in sixty cities.

Australia.—Unweighted average of the rents of four, five, and six rooms in Sydney and Melbourne.

New Zealand.—Unweighted average of the rents of four, five, and six rooms in four principal towns.

PRICE INDEXES—AVERAGE RETAIL PRICES OF CERTAIN COMMODITIES IN THE UNITED KINGDOM AND THE DOMINIONS.

(South Africa in each case=1000.)

Commodity.	1914.				1924 (December).			
	United Kingdom.	Canada.	Australia.	New Zealand.	United Kingdom.	Canada.	Australia.	New Zealand.
Bread	475	719	576	661	647	927	664	791
Flour	527	605	490	600	752	740	698	719
Oatmeal	463	537	659	537	642	595	741	840
Rice	690	1034	1034	828	675	1,306	790	798
Tea	709	709	612	733	823	971	785	852
Coffee	933	1061	1056	1078	—	1,288	1,192	1,199
Sugar	714	1143	982	764	1,058	1,177	1,138	996
Jam	556	—	698	873	—	1,293	927	1,115
Potatoes	700	700	900	700	882	441	840	1,317
Butter	708	636	719	700	1,203	928	822	892
Cheese	607	703	745	621	843	858	866	768
Eggs	534	605	616	658	1,922	1,448	904	847
Milk	583	723	843	677	884	787	983	850
Bacon	665	753	653	600	823	754	838	740
Beef	899	1291	747	823	1,409	1,255	945	865
Mutton	945	1411	685	740	1,119	1,184	787	738
Arithmetical Average	669	842	751	725	977	997	870	895
Weighted Average	688	882	728	724	1,030	1,009	862	859
Paraffin	549	716*	809	821	592	634*	1,039	962
Coal	796	1090†	784	1216	1,276	1,656†	1,160	1,790
Candles	565	—	1113	1016	711	—	1,260	1,109
Rent	299	787	715	621	347	852	880	668
Weighted Average, all Commodities	537	849	757	699	752	960	886	819

* Coal oil. † Anthracite and bituminous coal.

3. **Price Fluctuations in the United Kingdom and the Union.**—The following table gives the wholesale and retail price indexes for the United Kingdom and the Union. It will be seen that there is a general correspondence between the fluctuations of wholesale prices of imported goods in the Union and wholesale prices in the United Kingdom.

PRICE INDEXES IN THE UNITED KINGDOM AND THE UNION.

(Base 1914=1000 in each case.)

(*a*) WHOLESALE PRICES.

Description.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
UNITED KINGDOM—									
Economist	1626	2068	2279	2382	2869	1834	1616	1642	1762
Statist	1595	2061	2265	2419	2953	1824	1541	1529	1647
Board of Trade	1591	2073	2282	2528	3055	1960	1579	1582	1652
Union of South Africa	1265	1452	1581	1701	2305	1656	1326	1306	1328
Imported Goods	1493	1891	2228	2283	2880	2261	1691	1603	1552
S.A. Goods	1171	1268	1310	1463	2077	1410	1179	1188	1236

(*b*) RETAIL PRICES (FOOD).

Description.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
UNITED KINGDOM—									
*Labour Gazette**	1610	2040	2100	2090	2580	2200	1800	1620	1620
Union of South Africa	1111	1235	1252	1358	1785	1451	1183	1171	1201

* Figures for July each year.

4. **Purchasing Power of a Sovereign in the United Kingdom and the Dominions.**—The following table has been framed for the purpose of indicating the relative purchasing power of money at various periods in Australia, Canada, New Zealand, the United Kingdom, and South Africa. For this purpose the prices applicable to each period and country have been weighted according to the family budget system. The resulting relatives furnish comparisons based in each case upon the average prices in nine principal towns in the Union in 1910:—

PURCHASING POWER OF A SOVEREIGN COMPARED IN SOUTH AFRICA, AUSTRALIA, CANADA, NEW ZEALAND, AND THE UNITED KINGDOM, 1910, JULY, 1914, AND 1924. (BASIS OF TABLES—UNION OF SOUTH AFRICA, 1910 = £1.)

Country.	Food, Fuel, Light, and Rent.			Food.		
	1910.	1914.	1924, Dec.	1910.	1914.	1924, Dec.
PURCHASING POWER OF A SOVEREIGN.						
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
South Africa	1 0 0	0 18 7	0 14 11	1 0 0	0 17 8	0 14 7
Australia	1 8 9	1 4 6	0 16 10	1 8 6	1 4 3	0 16 11
Canada	1 4 9	1 1 10	0 15 7	1 2 7	1 0 0	0 14 5
New Zealand	1 9 10	1 6 5	0 18 3	1 8 9	1 4 5	0 17 0
United Kingdom	—	1 14 7	0 19 11	—	1 5 8	0 14 2
AMOUNT REQUIRED ON THE AVERAGE TO PURCHASE THAT WHICH IN SOUTH AFRICA (AVERAGE OF NINE PRINCIPAL TOWNS) COULD HAVE BEEN PURCHASED IN 1910 FOR £1.						
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
South Africa	1 0 0	1 1 7	1 6 9	1 0 0	1 2 8	1 7 6
Australia	0 13 11	0 16 4	1 3 8	0 14 0	0 16 6	1 3 8
Canada	0 16 2	0 18 4	1 5 8	0 17 8	1 0 0	1 7 9
New Zealand	0 13 5	0 15 1	1 1 11	0 13 11	0 16 5	1 3 7
United Kingdom	—	0 11 7	1 0 1	—	0 15 7	1 8 3

5. **Prices of Wheat, Flour, and Bread in Different Countries.**—The following tables give the wholesale prices of wheat and flour, as well as the retail prices of bread in England, the Dominions, and the United States for a number of years. The prices in all countries were subject to a certain amount of control during the war period. The prices for the United States and Canada are converted at exchange parity. It will be noticed that prices in South Africa are, and consistently have been, considerably in excess of those obtaining even in a largely importing country such as England.

(i) WHEAT—WHOLESALE PRICES IN VARIOUS COUNTRIES, 1910, TO JULY, 1925.

PER 200 LB.

Period.	South Africa.	England.	Canada.	Australia.	U.S.A.
	S.A. Milling.	English Gazette.	No. 1 Northern Manitoba.	Sydney, Wholesale.	No. 1 Northern.
	s. d.	s. d.	s. d.	s. d.	s. d.
1910	18 1	13 2	—	12 9	—
1911	19 4	13 2	—	11 8	—
1912	19 5	14 6	—	13 7	—
1913	22 10	13 3	—	11 11	12 6
1914	24 6	14 6	13 8	13 9	14 3
1915	29 11	22 6	17 5	18 1	18 5
1916	33 2	24 4	18 11	16 1	19 5
1917	35 8	31 7	29 10	15 10	31 9
1918	35 0	30 4	30 5	15 10	30 7
1919	35 0	30 5	30 4	17 0	35 1
1920	63 0	33 6	30 10	28 9	35 7
1921	33 2	30 5	22 4	28 10	20 1
1922	25 9	20 0	17 0	18 11	17 7
1923—January	26 0	17 5	14 8	19 9	16 5
April	25 6	17 8	16 7	18 7	17 2
July	26 3	20 0	14 9	17 6	13 11
October	25 11	16 0	13 5	16 1	16 5
1924—January	25 2	17 8	13 3	15 5	15 3
April	24 5	18 10	13 5	16 1	15 6
July	25 4	21 4	21 3	18 10	19 2
October	32 3	22 4	21 10	21 8	20 4
1925—January	31 3	23 0	26 10	22 3	26 2
April	30 9	21 11	21 4	19 7	21 3
July	30 7	21 3	22 2	19 9	20 10

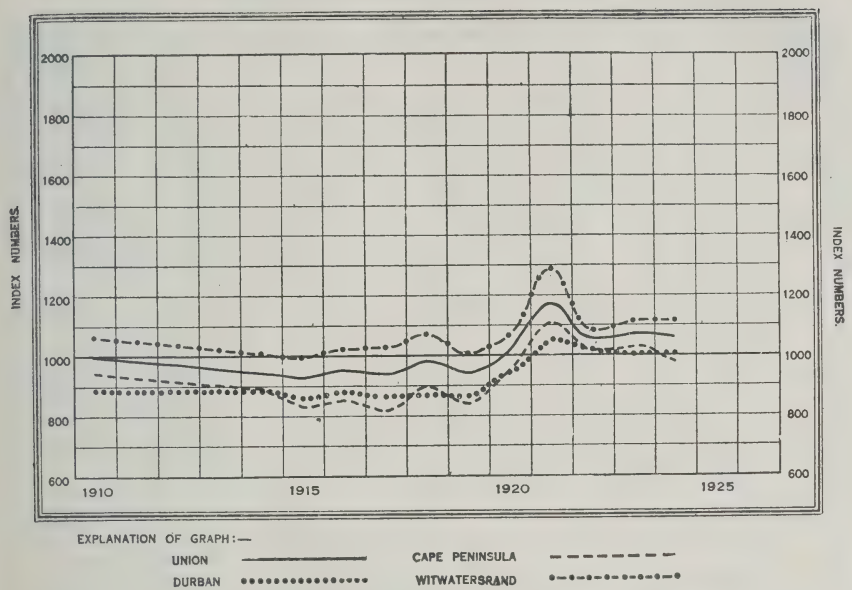
(ii) FLOUR—WHOLESALE PRICES IN VARIOUS COUNTRIES, 1910, TO JULY, 1925.

PER 100 LB.

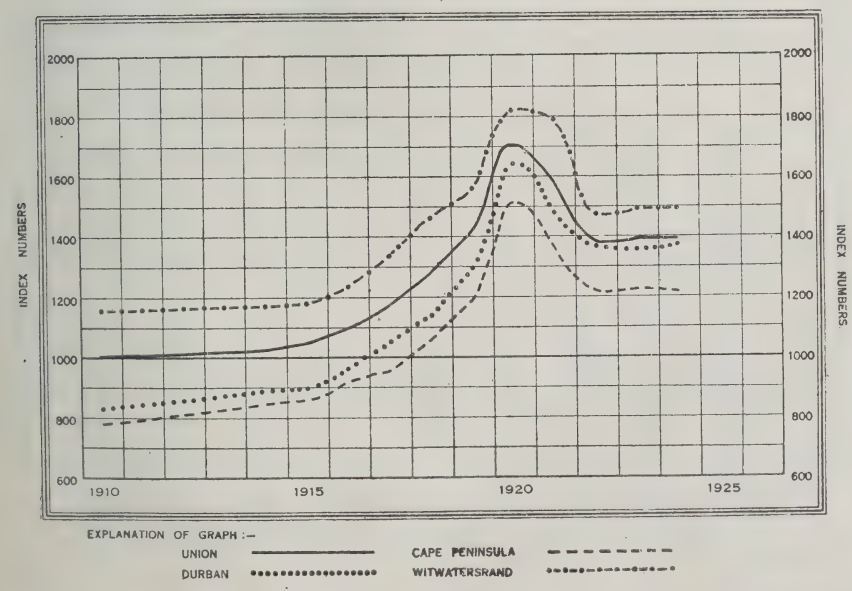
Period.	South Africa.		England.	Australia.	U.S.A.
	South African.	Imported.	G.R. or London Straights.	Sydney, Wholesale.	Standard Patents.
	s. d.	s. d.	s. d.	s. d.	s. d.
1910	14 0	15 9	11 1	8 8	—
1911	14 0	15 0	10 4	7 7	—
1912	14 0	15 9	11 5	8 5	—
1913	16 6	17 0	10 11	7 9	9 7
1914	19 11	17 3	12 0	8 5	10 8
1915	22 5	20 11	17 6	11 11	14 0
1916	25 0	24 0	18 9	10 1	15 3
1917	27 9	26 6	20 11	9 11	23 10
1918	28 10	27 4	16 8	9 10	*22 5
1919	28 11	28 3	15 10	10 1	25 2
1920	42 11	41 6	23 2	16 5	26 7
1921	32 10	29 5	23 1	16 11	17 6
1922	24 6	22 7	16 4	11 0	15 3
1923—January	23 8	20 10	14 8	10 6	13 11
April	22 11	20 6	14 7	10 1	14 7
July	22 9	19 8	14 3	9 11	12 7
October	22 1	18 11	13 2	9 7	13 0
1924—January	21 7	18 9	13 4	9 7	13 0
April	22 2	19 0	13 3	9 10	13 4
July	22 6	19 9	15 7	11 10	15 8
October	23 8	22 5	18 6	13 3	16 10
1925—January	24 7	23 9	19 7	13 11	20 4
April	25 8	24 10	17 9	13 6	17 3
July	25 2	23 7	16 8	12 8	18 2

* Standard War Flour.

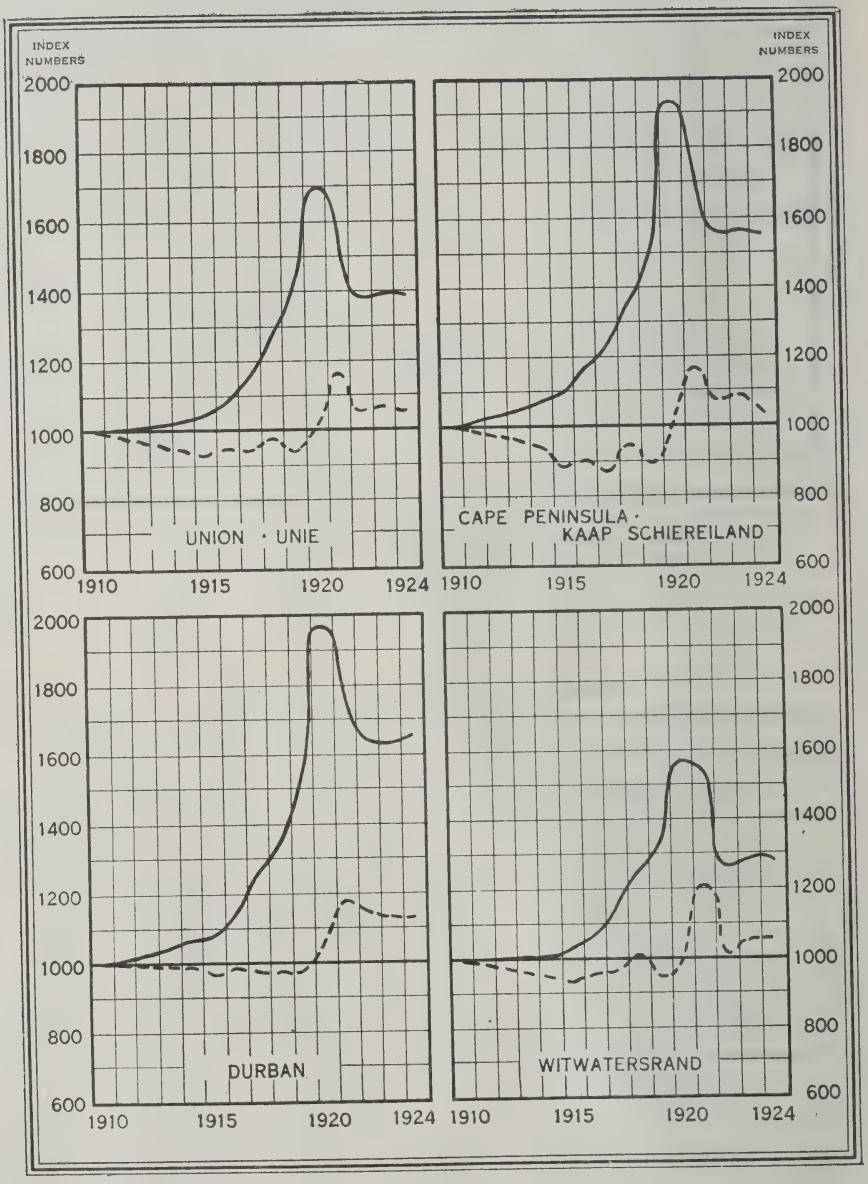
EFFECTIVE WAGES, 1910 TO 1924.



NOMINAL WAGES, 1910 TO 1924.



NOMINAL AND EFFECTIVE WAGES.



NOMINAL WAGES ——— EFFECTIVE WAGES - - - - -

BASE OF EACH GRAPH STARTS FROM 1,000 IN 1910: NOT STRICTLY COMPARABLE WITH EACH OTHER.

(iii) BREAD—RETAIL PRICES IN VARIOUS COUNTRIES, 1910 TO 1925.

PER LB.

Period.	South Africa.	England.	Canada.	Australia (Sydney and Melbourne).	U.S.A.
	d.	d.	d.	d.	d.
1910	2·75	—	2·17	1·55	—
1911	2·92	—	2·12	1·58	—
1912	2·92	—	1·97	1·60	—
1913	2·91	—	2·02	1·65	2·76
1914	2·95	1·44	2·12	1·70	3·11
1915	3·20	—	2·32	2·18	3·45
1916	3·25	—	2·46	1·90	3·60
1917	3·80	—	3·43	1·88	4·54
1918	3·96	2·22	3·83	1·90	4·83
1919	4·27	2·26	3·89	2·05	4·93
1920	6·33	3·05	4·58	2·88	5·67
1921	5·03	3·34	4·00	3·20	4·88
1922	3·90	2·45	3·41	2·49	4·29
1923—January	3·67	2·25	3·30	2·46	4·29
April	3·67	2·25	3·30	2·50	4·29
July	3·63	2·25	3·30	2·50	4·29
October	3·63	2·19	3·35	2·50	4·29
1924—January	3·58	2·13	3·30	2·49	4·29
April	3·54	2·13	3·30	2·49	4·29
July	3·54	2·13	3·30	2·55	4·29
October	3·73	2·44	3·50	2·60	4·34
1925—January	3·98	2·56	3·70	2·73	4·54
April	3·95	2·69	3·89	2·78	4·63
July	3·89	2·63	3·89	2·76	4·63

6. **"Sundries."**—The question of the inclusion of "sundries" (that is, clothing, soft goods, boots, vegetables, and wood, sundry groceries, coloured and native servants, and hardware) as an item in the determination of the cost of living is one that presents considerable difficulties. Reference should be made to the sixth issue of this *Year Book*, where the question is more fully dealt with.

While it has been considered that, for the purpose of wage calculations, the use of figures calculated on the basis of food, fuel, light, and rent is much safer, it became evident that in many cases the "sundries" figures were being used in conjunction therewith for wage agreements and calculations. It was therefore decided in order to meet the demand for percentage figures on these lines, regularly to publish a table containing the combined indexes for food, fuel, light, rent, and sundries from 1910 onwards. It has been assumed in constructing this table that the prices for "sundries" followed the same course as items of food, fuel, light, and rent from 1910 to 1914. Since then in constructing the price-indexes for food, fuel, light, rent, and sundries, the former has been combined with "sundries" in the proportion of two to one, on the assumption that the amount allowed for expenditure on "sundries" forms approximately one-third of the total household expenditure.

The following table contains the resulting indexes:—

PRICE INDEXES (RETAIL—FOOD, FUEL, LIGHT, RENT, AND SUNDRIES) IN NINE TOWNS, 1910 TO 1925.

(Weighted Average of Nine Towns in 1910=1000.)

Period.	Cape Town.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Weighted Average.
1910	830	928	876	860	854	943	1156	1109	1037	**1000**
1911	931	941	924	1028	880	983	1198	1142	1059	1052
1912	956	945	941	1058	885	1005	1249	1191	1083	1088
1913	985	954	953	1127	891	1026	1237	1197	1093	1101
1914	979	982	972	1112	929	1028	1244	1167	1145	1092
1915	1065	1077	1037	1094	978	1077	1315	1207	1201	1148
1916	1131	1124	1090	1117	1094	1175	1353	1286	1249	1219
1917	1230	1272	1206	1221	1213	1327	1504	1392	1379	1336
1918	1304	1324	1306	1363	1293	1420	1605	1495	1477	1428
1919	1456	1496	1446	1521	1391	1550	1767	1650	1641	1579
1920	1804	1866	1795	1906	1743	1927	2177	2041	2018	1957
1921	1637	1633	1617	1673	1593	1758	1986	1853	1789	1771
1922	1351	1306	1332	1581	1314	1475	1675	1553	1512	1477
1923	1312	1261	1304	1345	1280	1440	1636	1501	1484	1433
1924	1339	1312	1324	1366	1285	1460	1630	1519	1515	1453
1925 (2nd Qrter)	1354	1345	1355	1360	1325	1470	1617	1523	1522	1462

7. **Profiteering Act, 1920.**—Particulars of the *Profiteering Act*, 1920, which expired on the 30th June, 1922, were given in previous issues of this *Year Book* (Nos. 4 and 5).

CHAPTER VII.

PUBLIC HEALTH AND HOSPITALS.

§ 1. Public Health.

1. **Public Health—History and Development.**—An interesting and valuable article contributed by Dr. J. Alexander Mitchell, Secretary for Public Health and Chief Health Officer of the Union, on the history and development of the Health Administration of the country before and after the constitution of Union, with special reference to the prevalence of certain diseases amongst both European and non-European sections of the population, appeared in earlier issues of the *Official Year Book*, but has had to be omitted owing to demands of space. The reader is referred to *Year Books* Nos. 3, 4, 5, 6, or 7 for information on the subject.

2. **Plague.**—This disease was unknown in South Africa prior to 1899, when a small outbreak from infection introduced from India occurred at Delagoa Bay, with an extension to Middelburg, Transvaal. During the Anglo-Boer war infection was introduced with forage and other articles imported for military purposes from plague-infected ports in South America and India. Between 1900 and 1905 there were 1,694 cases of plague reported from different parts of the country now forming the Union, resulting in 947 deaths. A detailed summary of these outbreaks is published in *Official Year Books* Nos. 3 to 7. Between 1905 and 1912 no cases of plague were reported. Since 1912 sporadic outbreaks have occurred, and in 1924–25 considerable alarm was created by the discovery that there was widespread and virulent infection amongst veld rodents in certain parts of the country, and a consequent increase in the cases of plague amongst human beings.

The following table shows the incidence of plague from the date of Union, 1910, up to and including the health year ended the 30th June, 1925 :—

SUMMARY OF PLAGUE OUTBREAKS IN THE UNION SINCE THE 30th MAY, 1910, SHOWING THE NUMBER OF CASES AND NUMBER OF DEATHS AMONGST EUROPEANS AND NON-EUROPEANS.

Year.	Place.	European.		Non-European.		Total : All Races.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1912	*Durban and neighbourhood..	2	1	30	25	32	26
1914	†Midland Districts of Cape Province.....	2	2	33	29	35	31
1915	†Midland Districts of Cape Province.....	8	5	37	21	45	26
1916	Orange Free State— †Hoopstad, Winburg, and Senekal Districts.....	7	3	30	20	37	23
	Cape Province— †Uitenhage District.....	—	—	24	13	24	13
1917	Transvaal— †Potchefstroom District.....	—	—	15	14	15	14
	Orange Free State— †Winburg and Hoopstad Districts.....	—	—	29	21	29	21
	Cape Province— †Tarka District.....	—	—	1	1	1	1
	‡Glen Grey District.....	—	—	1	1	1	1
1918	Orange Free State— †Hoopstad District.....	—	—	2	2	2	2
	Transvaal— †Johannesburg.....	2	2	—	—	2	2
1920	Orange Free State— †Hoopstad and Bothaville Districts.....	1	—	11	4	12	4
1921	Orange Free State— ‡Hoopstad, Bothaville, and Kroonstad Districts.....	7	4	26	12	33	16

* A plague epizootic occurred amongst rodents at the Docks and in three or four other localities.
† No infection in rodents or other animals discovered.
‡ Existence of enzootic plague in veld rodent established. This is believed to have been the cause of the recurring outbreaks in these districts since 1916.

SUMMARY OF PLAGUE OUTBREAKS IN THE UNION SINCE THE 30TH MAY, 1910, SHOWING THE NUMBER OF CASES AND NUMBER OF DEATHS AMONGST EUROPEANS AND NON-EUROPEANS—(*continued*).

Year.	Place.	European.		Non-European.		Total: All Races.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1922	Cape Province—						
	*Molteno District	—	—	2	1	2	1
	Orange Free State—						
	*Kroonstad District, including Bothaville	1	—	4	3	9	7
	*Winburg District	—	—	4	4		
	*Vredefort District	—	—	—	—	—	—
1923	Cape Province—						
	*Uitenhage District	—	—	7	7	7	7
	Orange Free State—						
	†Hoopstad District	—	—	4	1	4	1
	†Winburg District	—	—	2	2	2	2
	†Kroonstad District	5	2	9	7	14	9
1st Jan. to 30th June, 1924	Cape Province—						
	*Albert District	—	—	24	16	27	19
	*Colesberg District	—	—	3	3		
	Orange Free State—						
	†Various districts	45	25	249	159	294	184
	Transvaal—						
	*Krugersdorp	—	—	6	4	9	5
	*Wolmaransstad	1	—	2	1		
1924–25	†Cape Province	1	1	42	26	112	68
	†Orange Free State Province	21	7	47	33		
	†Transvaal Province	—	—	1	1		

* Infection in veld rodents.
† Widespread and virulent infection in veld rodents.

3. **Typhus Fever.**—Epidemic outbreaks of what was described as "low-fever," accompanied frequently by high mortality, have occurred at periodic intervals in the Cape Province. The similarity of the disease to that of typhus fever has since been recognized and the more recent epidemics identified as such. Investigations have further established the fact that the disease is spread mainly, if not entirely, by lice, and its eradication is, therefore, a simple matter if only a reasonable standard of personal and domestic cleanliness and deverminizing be persisted in. The scattered native communities in and about the Transkei, where the disease is frequently found, and the resentment and suspicion aroused in the native mind by what appears to them European interference, makes the problem of eradication a more difficult matter than it otherwise need be.

The following table gives the number of cases of typhus fever reported amongst Europeans and non-Europeans over a series of years, together with the number of deaths from the disease :—

TYPHUS FEVER IN THE UNION—NUMBER OF CASES AND DEATHS REPORTED—1917 TO HEALTH YEAR ENDED JUNE, 1925.

Year.	European.		Non-European.		Total: All Races.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1917	31	5	3,935	832	3,966	837
1918	9	3	2,699	492	2,708	495
1919	25	4	4,803	1,118	4,828	1,122
1920	81	12	11,195	1,779	11,276	1,791
1921	132	17	9,025	1,123	9,157	1,140
1922	60	11	8,471	1,020	8,531	1,031
1923	59	4	2,864	433	2,923	437
1st January to 30th June, 1924	27	1	805	119	832	120
1924–25	37	—	1,107	163	1,144	163

4. **Public Health and Sanitation, etc.**—Considerably increased attention has in recent years been paid to matters of public health and sanitation in South Africa, especially in the larger urban centres. All of these, practically all the smaller towns, and a good many villages, now have gravitation water supplies—purification works being provided where the supply is taken from streams or rivers liable to pollution.

The majority of the larger centres and some of the smaller towns have water-carried sewerage systems, public slaughterhouses, isolation hospitals, and other essential requirements of up-to-date towns.

Infant and maternity welfare and town planning have, in the past, been neglected, but during the last few years a greatly increased amount of interest has been taken in these and kindred matters.

5. **Habit-forming Drugs.**—Apart from the provisions applicable to all poisons under the Medical, Dental, and Pharmacy laws, special Ordinances were passed in the Transvaal in 1905 and 1906, imposing restrictions on the importation and sale of opium. Regulations on the same subject in respect of the other Provinces were subsequently made under powers conferred by certain Customs laws.

The Union, as a signatory to the Versailles Peace Treaty (Article 295), became a party to the International Opium Convention of 1912, and undertook to enact legislation bringing into force the provisions of the Treaty in respect not only of opium, but also of cocaine, Indian hemp (dagga), and other habit-forming drugs. Pending the passing of a consolidating Medical, Dental, and Pharmacy Bill for the Union (in which it is proposed to deal comprehensively with the whole matter of habit-forming drugs), wide powers to make regulations on the subject were conferred on the Governor-General by section 10 of the *Customs and Excise Amendment Act*, No. 35 of 1922. Regulations under that section, promulgated by Proclamation No. 181 of 1922, prohibit the importation of any habit-forming drug except under special permit issuable only to medical practitioners, dentists, pharmacists, or veterinarians, and also prohibit the sale, supply, or use of any such drug except for purely medicinal or scientific purposes. The Regulations promulgated under Proclamation No. 181 of 1922 were amended by Proclamation No. 38 of 1924 so as to provide for the purchase of tincture of opium (laudanum) by farmers and owners of live stock for the prevention or treatment of diseases in stock, also for the procuring and keeping of cocaine solutions for "first-aid" treatment of eye injuries or other necessary purposes by managers of factories or workshops.

6. **Notifiable Infectious Diseases.**—The table given below shows the diseases which are notifiable by medical practitioners in the Union and the notifications of each disease during a series of years.

NOTIFICATIONS OF CASES OF INFECTIOUS DISEASES BY MEDICAL PRACTITIONERS 1921 TO 30th JUNE, 1925.

E = European. O = Other.

Diseases.	1921.	1922.	1923.	1st Jan. to 30th June, 1924.	1st July, 1924, to 30th June, 1925.								
	Union	Union.	Union.	Union	Union.	Cape of Good Hope.*		Natal.		Transvaal.		Orange Free State.	
	Total.	Total.	Total.	Total.	Total.	E.	O.	E.	O.	E.	O.	E.	O.
Anthrax.....	110	60	69	24	49	2	13	2	16	3	6	4	3
Diphtheria....	1,014	871	946	636	1,201	491	108	165	13	307	22	76	19
Encephalitis Infective.....	33	9	16	9	44	4	6	1	—	9	3	3	18
Enteric or Typhoid Fever..	4,511	3,977	4,299	2,346	4,390	1,187	954	288	384	612	686	204	75
Erysipelas....	167	172	193	80	167	53	30	9	—	40	21	12	2
Glanders.....	—	—	1	—	2	2	—	—	—	—	—	—	—
Leprosy.....	108	90	66	21	58	1	18	—	8	5	24	—	2
Malta Fever..	27	29	28	7	15	7	—	—	—	2	5	—	1
Meningitis, Epidemic Cerebro-spinal	113	452	832	172	552	22	46	7	28	63	303	62	21
Ophthalmia, Gonorrhoeal..	22	9	9	15	16	—	2	—	2	11	1	—	—
Ophthalmia Neonatorum.	98	80	82	50	132	16	65	—	—	24	6	8	13
Plague.....	33	8	5	39	79	2	15	—	—	—	1	21	40
Poliomyelitis, Acute.....	33	22	2	4	21	3	1	5	3	7	—	—	2
Puerperal Fever, including Puerperal Sepsis.....	134	121	142	60	155	45	45	3	10	31	4	10	7
Rabies.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlatina or Scarlet Fever.	920	2,275	1,036	414	879	235	10	40	3	556	9	22	4
Small-pox.....	787	455	191	157	108	8	69	—	1	—	19	—	11
Tuberculosis..	2,962	3,178	3,697	1,903	4,634	505	2,649	100	399	90	764	43	84
Typhus.....	6,257	4,729	1,787	498	814	22	485	30	53	—	61	5	158
TOTAL....	17,329	16,547	13,401	6,435	13,316	2,605	4,516	650	920	1,760	1,935	470	460

* Including Transkei.

7. **Local Health Authorities.**—For certain purposes, such as the control of sanitation, outbreaks of infectious disease, and other measures undertaken in the interests of the health of any urban community, most municipalities and some other local authorities in the Union have health officers and health departments attached to the local authority responsible for the area concerned. Owing to the absence of uniform legislation the scope of these departments varies considerably and cannot here be taken in review.

8. **District Surgeons.**—For the carrying out of the health and medical work devolving on the Government in the various districts of the Union medical officers known as district surgeons are employed, a few in large centres devoting the whole of their time to the work, but the large majority undertaking the Government work concurrently with their private practice. At the end of June, 1925, there were, in all, 279 district surgeons, of whom 8 were whole-time officers, 4 were whole-time but employed jointly with local authorities or public bodies, and 267 were part-time.

9. **Port Health Work.**—A port health officer is appointed by the Union Department of Public Health at each port of the Union to carry through the usual inspection and control for public health purposes of vessels arriving at and leaving the Union. Such officers act with the immigration officers in an advisory capacity in determining the physical fitness of immigrants into the Union. Entry is debarred, except under approved conditions, in the cases of such persons as are suffering from mental or physical defects, or are afflicted with disease. Tuberculosis is a disease specially cited as a disqualification in the case of an immigrant, and special authority is necessary for a person suffering from the disease to enter the Union. [See Section 4 (1) (*g*) and (*h*) of Act No. 22 of 1913.]

10. **Inspection and Prevention of Adulteration of Food and Drugs.**—Matters relating to diseased or unsound food are dealt with by local authorities under the *Public Health Act* and various municipal ordinances and the by-laws and regulations made thereunder. Adulteration of food and drugs is dealt with by the Government Health Department in the Cape, Natal, and the Orange Free State under special enactments; in the Transvaal it is dealt with by the municipalities under regulations made under a local ordinance; and in Natal the municipal authorities have certain powers under the municipal laws. At the ports the adulteration laws are enforced by the Health Department acting in co-operation with the Department of Customs and Excise.

The present laws relating to adulteration and the prevention of false description of food and drugs are unsatisfactory and inadequate in material respects. A consolidating and amending *Food, Drugs, and Disinfectants Bill* has been prepared for but has not yet been passed by Parliament.

11. **International Health Organization and South African Health Intelligence System.**—The Union is a party to the International Health Convention of Rome signed in 1912, and is represented on the committee of that organization by one of the health officers of the Ministry of Health who has had extensive experience of public health work in South Africa. That Office has recently been linked up with the health organization established at Geneva under the League of Nations. Periodical reports and bulletins on matters of international health concern are furnished to the Health Department by these two organizations. Health cablegrams are exchanged fortnightly between the Health Department and the British Ministry of Health, and there is a reciprocal arrangement between the Union and Australia, New Zealand, and India, under which health information of urgent importance is cabled as occasion requires. By arrangement with the Imperial Government, British Consuls in foreign countries cable the Union Government, at its cost, information regarding outbreaks of formidable epidemic disease or other matters likely to be of use to South Africa.

In February, 1925, a Conference representing Governments and Sanitary Organizations in the Far East was held at Singapore, under the auspices of the League of Nations, and arrangements were made for opening an Epidemic Intelligence Bureau at Singapore. These arrangements have since been completed with the aid of a grant of $25,000 (approximately £5,000) from the Rockefeller Foundation towards the expenses of the Bureau for the next five years. The Bureau will receive weekly telegraphic reports regarding epidemic diseases from all countries in the "Eastern Area," including the East Coast of Africa and the Union of South Africa, and will transmit—by telegraph or wireless—from Saigon, a weekly summary in code to all countries concerned. This system will be of great value in connexion with the Port Health Administration of the Union.

Weekly bulletins, stating the incidence of formidable epidemic disease and particulars as to any undue prevalence of other infectious disease in the Union, together with the latest available data as to the occurrence or prevalence of formidable epidemic diseases in other countries, are published by the Health Department and widely distributed. Weekly abstracts of returns of notifications of infectious diseases throughout the Union are also distributed by the Department to the Medical Officers of Health of the major municipalities in the Union and others specially concerned.

Monthly returns of outbreaks and cases of, and deaths from, formidable epidemic diseases are also published by the Health Department.

§ 2. General Hospitals.

1. **Cape of Good Hope Hospitals.**—Under Ordinance No. 5 of 1912 all Divisional Council areas in which there is a state-aided hospital, dispensary, or convalescent home, are constituted hospital districts. In every hospital district there is a hospital board, and these boards have control and management of every state-aided hospital, dispensary, or convalescent home within the area for which the board is constituted. The boards are financed by Provincial subsidies calculated on the amount of their revenue derived from patients' fees and voluntary contributions and bequests. Boards may establish, with the approval of the Administrator of the Province, any of the following kinds of institutions: (*a*) hospitals for the reception or relief of persons requiring medical treatment; (*b*) dispensaries; (*c*) maternity homes; (*d*) convalescent homes; (*e*) sanatoriums; (*f*) institutions established for any other purpose which the Administrator by proclamation in the *Gazette* declares to be a public charitable purpose within the provisions of the Ordinance; (*g*) institutions established for any two or more of the above-mentioned purposes.

Committees of management may be established from among the members of a board for the administration of any matters within the power of the board. A board may make regulations in respect of any institutions under its control on certain matters provided for in the Ordinance.

The following table summarizes such statistics as are available in regard to general hospitals which are under the control or supervision of the Cape Provincial Administration :—

GENERAL HOSPITALS—CAPE OF GOOD HOPE, 1914 TO 1924.

Year.	Daily Average Number of Patients.	Ordinary Revenue.	Ordinary Expenditure.	Daily Average Cost per Patient.	Grants-in-Aid.*
		£	£	s. d.	£
1914	34·41	166,627	127,804	9 1·31	69,557
1915	33·99	162,480	135,882	9 3·77	70,509
1916	31·78	193,476	156,265	9 4·65	43,072
1917	35·11	134,995	155,560	8 5·65	69,993
1918	36·81	174,459	187,629	9 1·98	61,893
1919	38·84	181,566	204,628	10 3·16	90,045
1920	40·10	227,665	266,567	11 1·63	151,042
1921	37·57	306,735	329,324	11 8·25	184,978
1922	36·1	119,858	230,681	12 2·00	107,677
1923	34·66	123,007	231,601	11 4·95	106,878
1924	32·06	125,535	230,868	10 6·6	101,599

* For period ending 31st March of following year. The figures from 1922 onwards are worked out on an amended and more satisfactory basis, to show actual ordinary revenue and expenditure and grants-in-aid.

2. **Natal Hospitals.**—There are seven hospitals in Natal, directly controlled by the Provincial Administration, viz., Addington Hospital, Durban, Grey's Hospital, Pietermaritzburg, and Cottage Hospitals at Newcastle, Dundee, Eshowe, Port Shepstone, and Vryheid.

In addition to the above, there are other institutions which receive financial assistance from Provincial funds but are controlled by other than Government authority. These are as follows: Ladysmith, Estcourt, and Pietermaritzburg Sanatoriums; native hospitals at Dundee, Ridge Road, Durban, and Kwamagwaza; Indian Hospitals at Amatikulu, Felixton, and Estcourt; and hospitals at Empangeni and Lansdowne Mission Station at Somkele.

Grey's Hospital was established under Law No. 4 of 1877, but has now been taken over by the Provincial Administration under Ordinance No. 9, 1922.

The medical control of the hospital is exercised by a resident medical superintendent appointed by the board, but there is also a visiting medical staff, entirely honorary, consisting of four surgeons, two physicians, and one ophthalmic physician.

Addington Hospital, Durban, is entirely under the control of a permanent medical staff appointed by the Provincial Administration. There is a board of management representative of various interests and elected annually, but this board has no executive functions and acts only in an advisory capacity. This institution was opened in 1879, the number of patients admitted in that year having been 642. The buildings consisted of two large wards and an administration block. Subsequently another storey was added, and from time to time additions have been erected including an operating theatre, laundry, nurses' home, new kitchen, Indian quarters, isolation ward, mortuary, and separate buildings for the treatment of native and Indian patients. The present staff consists of a resident medical superintendent and 5 assistants, a nursing staff of 120 and a clerical and house staff of 150, including Indians.

The five cottage hospitals at Dundee, Newcastle, Eshowe, Vryheid, and Port Shepstone serve the interior districts and are maintained solely at Government expense. A local practitioner is in medical charge at each place, and a matron assisted by an adequate nursing staff is in residence.

The sanatoriums at Pietermaritzburg, Estcourt, and Ladysmith are controlled by the Roman Catholic mission and receive substantial grants-in-aid from Government, provided that they have qualified hospital nurses on their staffs.

The following table summarizes such statistics as are available in regard to general hospitals which are under the control or supervision of the Natal Provincial Administration :—

GENERAL HOSPITALS—NATAL, 1913–14 TO 1923–24.

Year.	Revenue. (Government Hospitals.)	Expenditure.	Grants-in-Aid.
	£	£	£
1913–14	6,314	21,588	10,740
1914–15	7,476	21,604	11,560
1915–16	7,756	23,957	11,850
1916–17	9,571	26,138	12,580
1917–18	16,890	32,708	13,450
1918–19	14,426	38,871	14,500
1919–20	16,175	48,763	19,476
1920–21	20,484	65,088	32,658
1921–22	31,269	62,329	31,201
1922–23	25,564	73,626	13,290
1923–24	25,958	86,055	2,917*

* The decrease in the total amount of grants-in-aid for 1923–24 is due to the fact that Grey's Hospital, Pietermaritzburg, became a Government institution in 1922.

3. **Transvaal Hospitals.**—The following hospitals are maintained by the Provincial Administration, and committees are appointed under the provisions of the *Hospital Committees Ordinance*, 1917, for their management :—

Johannesburg.	Germiston;
Boksburg.	Barberton.
Krugersdorp.	Klerksdorp;
Pretoria.	Pietersburg.

The Chronic Sick Home at Rietfontein, near Johannesburg, is managed directly by the Provincial Administration.

The following hospitals are supported by grants-in-aid : Bochem ; Jane Furse Memorial Hospital ; Elim ; Queen Victoria Maternity Hospital, Pretoria ; South African Hospital, Pretoria ; Hope Convalescent Home for Children, Johannesburg ; and cottage hospitals at Ermelo, Heidelberg, Middelburg, Potchefstroom, Roodepoort-Maraisburg, Sabie, Schweizer Reneke, Duivelskloof, M'phahlele Location, and Standerton.

The following table summarizes such statistics as are available in regard to general hospitals which are under the control or supervision of the Transvaal Provincial Administration :—

GENERAL HOSPITALS—TRANSVAAL, 1917–18 TO 1923–24.

Year.	Revenue. (Fees.)	Expenditure.	Grants-in-Aid.	Government Hospitals.				
				Average Daily Population.		Percentage.		Ordinary Maintenance Cost per Diem.
				European.	Non-European.	European.	Non-European.	
	£	£	£					s. d.
1917–18	61,787	193,244	9,382	954·83		—	—	12 1·71
1918–19	64,486	231,572	9,720	763·33	254·52	75·00	25·00	12 2·26
1919–20	67,079	267,205	4,397	759·57	278·00	73·20	26·80	12 10·02
1920–21	73,537	333,773	9,266	785·43	292·06	72·89	27·11	15 4·75
1921–22	69,149	340,273	11,794	768·50	305·90	71·53	28·47	15 6·13
1922–23	63,995	294,240	9,351	795·80	301·84	72·51	27·49	13 5·02
1923–24	66,624	301,493	10,199	893·99	325·68	73·30	26·70	12 6·03

NOTE.—It is not possible to obtain comparable figures prior to 1917–18, owing to the different system of hospital administration in force before that date.

4. **Orange Free State Hospitals.**—The administration of general hospitals which are public in character is provided for by the *Hospitals and Charitable Institutions Ordinance*, 1913, in terms whereof these institutions are subsidized by the Administration on the £ for £ basis. The management of such hospitals, as well as the full financial responsibility in respect of them, is vested in boards which consist of six or twelve members according to determination by the Administrator in consultation with the old members, if any. One-third of the members are appointed by the Town Council or Councils, one-third by the Administrator, and the remaining one-third are elected by registered contributors. In the event of a deficit occurring in any year and the Administrator being satisfied that the board has done all in its power to guard against such an occurrence, the deficit is paid in whole or in part by the Administration, and the Town Council or Councils concerned, in equal proportions. In terms of an amending Ordinance, No. 4 of 1922, the Administrator may, however, exempt a Town Council or Town Councils from payment of the whole or any portion of the amount payable by them in respect of such deficit. All movable and immovable property is vested in the board, which may also borrow money, whether by way of bank overdraft or in any other manner, for the purpose of erecting buildings or making additions or alterations to buildings or of purchasing land, and on every loan raised for any of such purposes one-half of the interest and sinking fund charges on such loan forms a direct charge on the revenues of the Provincial Administration. In terms of section 51 of the principal Ordinance, as amended, a hospital may be closed with the consent of the Administrator and, on the dissolution of the Board as a result thereof, all movable and immovable property which vested in terms of the Ordinance in the Board so dissolved shall become vested in the Administrator to be held in trust by him. A board may further, with the approval of the Administrator, borrow money by way of bank overdraft for the purpose of meeting any ordinary recurrent expenditure. The board, besides controlling and managing the hospital for the district defined in terms of the Ordinance, also has the control and management in accordance with the Ordinance of every other hospital or kindred charitable institution in the district.

The admission of patients applying to the board for treatment, as well as the terms on which treatment will be afforded, whether free, at reduced rates, or at full rates, is governed by section 53 of the Ordinance, and in terms of section 54 (2) indigent patients may be admitted at the instance of the Administrator for free treatment.

Section 62 provides for the framing of regulations not inconsistent with the Ordinance—

(1) regulating the admission or discharge of patients and the amounts of the fees to be paid by them;
(2) prescribing the duties of officers, nurses, attendants, and servants, and the conditions upon which registered medical practitioners not on the staff may attend patients at the institution;
(3) maintaining order and discipline; and
(4) generally making provision for all matters affecting the management, care, control, and superintendence of the institution and the fulfilment of the purposes thereof.

The accounts of the board are audited from time to time by auditors appointed by the Administrator, and for general administrative purposes hospitals are inspected from time to time by the medical inspector of hospitals appointed under the Ordinance, who is required to furnish the Administrator annually with a report upon the administration of the Ordinance, such report being laid before the Provincial Council.

The following table shows the expenditure of the Orange Free State Provincial Administration on hospitals and kindred institutions from the year 1913–14 onwards:—

EXPENDITURE OF ORANGE FREE STATE PROVINCIAL ADMINISTRATION ON HOSPITALS, 1913–14 TO 1923–24.

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1913–14.....	10,662	1917–18.....	9,075	1921–22.....	19,815
1914–15.....	11,317	1918–19.....	12,748	1922–23.....	14,639
1915–16.....	6,583	1919–20.....	12,834	1923–24.....	16,079
1916–17.....	7,928	1920–21.....	22,670		

§ 3. Mentally Disordered or Defective Persons.

1. **Legislation.**—Act No. 38 of 1916 repeals all previous Acts in force in the Provinces of the Union on this subject. The Act covers all cases of mental disorder or defect where, as a result of such disorder or defect, the patient is incapable of managing himself or his affairs, is a danger to himself or others, or requires care, treatment, and control. The provisions of the Act apply to and the procedure is the same for persons of all ages.

Detention of patients, whether in public institutions, single care, licensed institutions, general hospitals, or elsewhere is, with certain exceptions specially provided for, legal only when authorized by a magistrate, court, or a judge. The Act authorizes the appointment of a Commissioner of mentally disordered or defective persons, styled Commissioner for Mental Hygiene, and of boards to visit and report on the institutions and the welfare of the patients. The care and administration of the property of mentally disordered or defective persons is placed in the hands of the Master of the Supreme Court. Other provisions of the Act cover mentally disordered or defective persons under detention in respect of criminal offences, the admission of patients from other states or territories of Africa, voluntary boarders, patients residing in private dwellings, the establishment of licensed institutions, reception of patients in general hospitals and similar institutions, offences and penalties, use of mechanical restraint, recovery of cost of maintenance, and other matters relative to the care and control of mentally disordered persons.

2. **Mental Hospitals.**—There are eight mental hospitals and two institutions for feeble minded in the Union, the names and other particulars of which are given below :—

MENTAL HOSPITALS—CLASS OF ACCOMMODATION, 1925.

Name of Institution.	Province.	Races Treated.
Valkenberg Mental Hospital	Cape of Good Hope	All races.
Grahamstown Mental Hospital	Cape of Good Hope	All races.
Port Alfred Mental Hospital	Cape of Good Hope	Coloured races only.
Fort Beaufort Mental Hospital	Cape of Good Hope	Coloured races only.
Queenstown Mental Hospital	Cape of Good Hope	All races.
Pietermaritzburg Mental Hospital	Natal	All races.
Pretoria Mental Hospital	Transvaal	All races.
Bloemfontein Mental Hospital	Orange Free State	All races.
The Alexandra Institution for Feeble-minded	Cape of Good Hope	Europeans only.
The Witrand Institution for Feeble-minded	Transvaal	Europeans only.

3. **Institutions for Feeble-minded Persons.**—The Alexandra Institution for the Feeble-minded, near Cape Town, was acquired by the Union Government in 1920 from the Cape Provincial Administration. It has been converted into an institution for European defectives of all ages. There is at this institution a school for defective children, where they are trained to be useful with their hands, and are given such instruction in ordinary school teaching as they are able to assimilate, such teaching being particularly directed to making them more efficient in the simpler or more skilled crafts and trades, according to their natural ability. From the school the children are later drafted into the special handicrafts and vocational training sections, where they are taught to be as useful and self-supporting as possible. The higher grade defectives generally become almost or entirely self-supporting under such treatment, and even the lower grade mentally deficient children become partially so. This is an advantage to the State, and they themselves are more happy and contented than they could otherwise have been. The institution was the first of its kind in this country.

A similar institution—the *Witrand Institution for Feeble Minded*—has been opened at Potchefstroom in the Transvaal.

4. **Single Patients.**—Under section 7 of the Act, a patient may be received and detained as a single patient in the dwelling of a householder who is considered to be a fit and proper person to have charge of the patient. The regulations prescribe that the medical practitioner in attendance on a single patient shall furnish periodical reports on the mental and bodily condition of the patient, and on the suitability of the arrangements for his care and treatment.

5. **Licensed Institutions.**—Chapter VI of the Act provides for the granting of licences to persons to keep houses for the reception of more than one mentally disordered or defective patient. There are twelve institutions of this description, one providing accommodation for non-European patients, the remainder for Europeans. Six are privately owned, and receive no financial support from the Government; six receive assistance. The number of registered patients in licensed houses on the 31st December, 1924, was 74 (70 Europeans and 4 non-Europeans).

6. **Mentally Defective Children in Schools.**—The question of imbecile or abnormally backward children in schools has for some time been under the consideration of the various authorities concerned, and in the Transvaal regulations have been issued which provide for the examination of backward children by a psychiatrist or a school medical officer, in co-operation with the Commissioner for Mental Hygiene. Such children, if diagnosed *very*

backward, border area, or *moron,* are to be placed in special classes or schools, and if reported *imbecile* or *moral imbecile,* they are to be debarred from further school attendance and cared for at home or in an institution under the *Mental Disorders Act.*

7. **Patients and Staff (Mental Hospitals and Institutions).**—Particulars are given in the subjoined table (i) as to staff, patients, expenditure, and receipts at mental hospitals and institutions in the Union for six years, and (ii) the average cost per patient.

(i) MENTAL HOSPITALS AND INSTITUTIONS—STAFF, PATIENTS, AND EXPENDITURE, 1919 TO 1924.

Particulars.	1919.	1920.	1921.	1922.	1923.	1924.
Number of Institutions.....	8	8	8	9	10	10
Staff—						
Medical.....	19	21	26	28	31	36
Nursing.....	} 810	771	877	906	929	1,126
Attendants.....						
Clerical.....	38	31	36	48	43	50
Other employees.....	387	345	446	391	514	510
TOTAL.....	1,254	1,168	1,385	1,373	1,517	1,722
Per 100 Patients...	22	19	22	20	20	22
Patients—						
First admissions.....	1,390	1,320	1,356	1,498	1,569	1,599
Readmissions.....	364	540	548	561	680	814
Discharges (recovered).....	596	534	541	558	595	627
Discharges (not improved)..	67	54	64	56	72	92
Discharges (relieved).....	138	100	121	102	120	157
Transferred.....	194	331	347	355	442	628
Deaths.....	409	489	519	474	474	517
Remaining 31st December..	5,771	6,123	6,434	6,922	7,468	7,913
Expenditure..... £	310,379	422,089	391,957	345,586	386,350	431,897
Receipts from paying patients £	39,450	41,501	51,239	57,072	58,609	55,897

(ii) MENTAL HOSPITALS AND INSTITUTIONS—AVERAGE NET COST PER PATIENT PER DIEM, 1919 TO 1924.

Institution.	1919.	1920.	1921.	1922.	1923.	1924.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cape of Good Hope—						
Valkenberg.....	2 10	3 10	3 2	2 2	2 2	2 2
Grahamstown.....	3 6	4 9	3 7	2 10	2 6	2 5
Port Alfred.....	2 11	4 6	3 8	2 8	2 6	2 5
Fort Beaufort.....	2 5	2 7	2 6	1 11	2 3	2 5
Queenstown †.....	—	—	—	7 10	4 1	2 5
Alexandra *.....	—	—	11 10	4 8	3 9	3 4
Natal—						
Pietermaritzburg.....	2 8	3 4	2 6	1 6	1 9	2 0
Transvaal—						
Pretoria.....	2 0	3 8	2 8	2 2	2 3	2 6
Orange Free State—						
Bloemfontein.....	2 4	3 5	3 0	2 1	2 3	2 6
All Institutions—						
Average cost per patient per diem.....	2 10	3 8	3 0	2 4	2 5	2 6

* Opened July, 1921.

† Queenstown Mental Hospital was only opened in October, 1922, and the expenditure includes cost of furnishing, etc.

(iii) DISTRIBUTION OF PATIENTS IN MENTAL HOSPITALS AND INSTITUTIONS, 31st DECEMBER, 1924.

Institution.	European.		Native.		Coloured.		Asiatic.		Total, All Races.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Valkenberg.....	404	380	45	15	290	272	4	—	1,410
Alexandra.....	253	268	—	—	—	—	—	—	521
Grahamstown...	327	184	26	—	14	—	—	—	551
Port Alfred.....	—	—	113	120	53	39	6	—	331
Fort Beaufort...	—	—	319	86	92	20	5	—	522
Queenstown.....	—	101	173	103	14	12	—	—	403
Bloemfontein....	251	162	427	165	29	14	3	—	1,051
Pietermaritzburg	216	197	295	98	16	21	76	16	935
Pretoria.....	498	409	555	173	26	27	6	3	1,697
Witrand.....	213	164	109*	—	6*	—	—	—	492
TOTAL.....	2,162	1,865	2,062	760	540	405	100	19	7,913

* Transferred to Witrand from other Mental Hospitals for labour purposes.

8. **Mentally Disordered and Defective Persons.**—The subjoined tables show for a period of years in each case (i) the proportion of mentally disordered persons per 100,000 of the population (revised estimates) and (ii) the race and sex of such persons :—

(i) MENTALLY DISORDERED AND DEFECTIVE PERSONS IN THE UNION PER 100,000 OF ESTIMATED POPULATION, 1919 TO 1924.

Race.	1919.	1920.	1921.	1922.	1923.	1924.
European.....	193	203	214	213	233	250
Native.....	47	49	50	53	55	57
Mixed and other non-European (including Asiatics).....	126	130	137	145	153	146
ALL RACES.....	87	91	95	99	104	108

(ii) MENTALLY DISORDERED PERSONS—RACE AND SEX, 1919 TO 1924.

Race and Sex.	1919.	1920.	1921.	1922.	1923.	1924.
Number of patients on mental hospital and institution registers at 31st December—						
European—Male.....	1,527	1 647	1,670	1,796	1,980	2,162
Female.....	1.251	1,323	1,444	1,610	1,745	1,865
Native— Male.....	1,595	1,688	1,750	1,879	1,969	2,062
Female.....	525	563	614	648	705	760
Coloured— Male.....	422	429	461	481	517	540
Female.....	298	314	332	362	396	405
Asiatic— Male.....	122	123	122	124	124	100
Female.....	31	36	41	45	32	19
TOTAL—ALL RACES.....	5,771	6,123	6,434	6,945	7,468	7,913
Number of mentally disordered and defective persons in licensed houses, single care, gaols, and institutions other than mental hospitals at 31st December—						
European—Male.....	17	20	58	49	52	69
Female.....	57	65	99	110	114	124
Native— Male.....	5	6	3	3	12	18
Female.....	—	3	1	4	—	4
Coloured— Male.....	1	1	2	—	1	4
Female.....	3	7	6	2	2	13
Asiatic— Male.....	—	—	—	1	3	2
Female.....	1	—	—	—	—	—
TOTAL—ALL RACES.....	84	102	169	169	184	234
GRAND TOTAL.....	5,855	6,225	6,603	7,114	7,652	8,147

§ 4. Venereal Diseases Hospitals.

1. **Institutions, Patients and Expenditure.**—Particulars are given in the subjoined tables as to the venereal diseases hospitals in the Union administered by the Department of Public Health, the number of patients treated, and the expenditure incurred. In addition to these, hospital accommodation for cases of venereal diseases is also provided at a number of State-aided general and private hospitals, as well as at certain isolation hospitals managed by local authorities.

(i) VENEREAL DISEASES HOSPITALS, ACCOMMODATION AND STAFF, 1918-19 TO 1923-24.

Heading.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
Number of Institutions *.....	8	8	9‡	9‡	9‡	9‡
Accommodation—						
European.....	14	17	64	64	64	64
Other.....	177	177	477	477	477	477
TOTAL.....	191	194	541	541	541	541
Staff—						
Medical†.....	—	7	8	9	9	9
Nursing—						
European.....	6	5	12	14	14	15
Clerical—						
Male.....	—	1	3	2	2	2
Inspectors, Stewards, Caretakers, etc.—						
European Male.....	6	6	11	7	7	7
European Female.....	1	3	4	3	3	3
Other Male.....	1	4	21	16	16	20
Other Female.....	4	4	6	4	4	6
TOTAL.....	18	30	65	55	55	62

* Excluding Bochem, Elim, and Furse Memorial State-aided private hospitals.
† Part time; 1 full time. ‡ Including Rietfontein.

(ii) VENEREAL DISEASES HOSPITALS—PATIENTS TREATED, 1917 TO 30th JUNE, 1924.

Institution.	1917.	1918.	1919.	1920.†	1921.	1922.	1923.	1st Jan. to 30th June, 1924.
Cape Town—								
Under Part I of Contagious Diseases Act.....	79	82	19	498	113	373	125	47
Under Part II of Contagious Diseases Act.....	88	90	96	—	—	—	—	—
Port Elizabeth—								
Under Part I of Contagious Diseases Act.....	41	57	27	202	177	166	96	39
Under Part II of Contagious Diseases Act.....	176	96	102	—	—	—	—	—
King William's Town—								
Under Part I of Contagious Diseases Act.....	3	—	—	173	141	140	112	99
Under Part II of Contagious Diseases Act.....	107	111	101	—	—	—	—	—
Colesberg.....	14	—	14	18	8	16	19	12
Cradock.....	35	31	25	33	23	26	28	6
Kuruman and Oliphants Hoek.....	58	6	7	38	66	46	17	12
Victoria West.....	22	12	22	10	15	8	—	—
Vryburg.....	135	123	134	103	69	172	148	46
Worcester*.....	48	—	—	—	—	—	—	—
Bochem ‡.....	—	—	—	945	1,623	1,268	1,075	478
Elim ‡.....	—	—	—	693	1,283	605	683	393
Rietfontein.....	—	—	—	3,479	2,760	3,091	2,762	1,500
Furse Memorial Hospital ‡.....	—	—	—	—	—	25	6	14
TOTAL.....	806	608	547	6,192	6,278	5,936	5,071	2,646

* Now closed. † Act No. 36 of 1919 came into operation on 1st January, 1920.
‡ State-aided private hospitals.

(iii) VENEREAL DISEASES HOSPITALS—EXPENDITURE, 1920-21 TO 1923-24.

Institution.	1920–21.	1921–22.			1922–23.			1923–24.		
	Total.	Total.	Salaries, Wages, and Allowances.	Maintenance Charges.	Total.	Salaries, Wages, and Allowances.	Maintenance Charges.	Total.	Salaries, Wages, and Allowances.	Maintenance Charges.
	£	£	£	£	£	£	£	£	£	£
Cape Town.....	1,221	1,047	510	537	910	371	539	1,059	575	484
Port Elizabeth..	1,294	1,041	527	514	1,056	496	560	644	273	371
King William's Town.....	574	487	184	303	483	182	301	583	291	292
Colesberg.....	35	105	—	105	98	—	98	138	12	126
Cradock.....	235	234	31	203	233	27	206	230	39	191
Kuruman.....	518	391	110	281	335	100	235	199	84	115
Victoria West...	344	353	—	353	305	—	305	77	57	20
Vryburg.....	869	812	379	433	650	326	324	458	182	276
Rietfontein.....	18,049	15,717	4,984	10,733	14,820	4 922	9,898	13,628	4,683	8,945
TOTAL...£	23,139	20,187	6,725	13,462	18,890	6,424	12,466	17,016	6,196	10,820

§ 5. Lepers.

1. **Legislation.**—Compulsory segregation of lepers is enforced by legislation in each Province of the Union. All cases of leprosy are reported to the Government and when the nature of the disease has been fully established the patients are removed to one of the leper institutions. No uniform legislation for the Union has yet been introduced.

2. **Leper Institutions.**—The subjoined tables give particulars as to the various leper institutions in the Union, and as to the number of patients in segregation :—

(i) LEPER HOSPITALS IN THE UNION—CLASS OF ACCOMMODATION, TOTAL STAFF, NUMBER OF PATIENTS, AND EXPENDITURE, 1924.

Institution.	Accommodation.	Staff.	Patients for Half-year ended 30th June, 1924.*	Expenditure.†
				£
Robben Island.....	All races.....	99	232·41	53,263
Emjanyana.....	Native and coloured	104	515	19,945
Mkambati (Pondoland).	Native only.....	39	138	5,850
Amatikulu.....	Native only.....	44	349·05	6,979
Pretoria.....	All Races.....	111	865·51	42,443
Bochem.....	Native only.....	10	64·67	2,025

* Average daily number resident. † Financial year 1923–24.

(ii) LEPER HOSPITALS—STAFF, PATIENTS, AND EXPENDITURE, 1919 TO 1924.

Particulars.	1919.	1920.	1921.	1922.	1923.	1924.
Staff—						
Medical	5	7‡	8	8	8	7
Nursing	135	93	71	65	65	55
Attendants						
Clerical	24	27	20	18	18	13
Other—European	105	98	102	105	104	89
Native	144	151	215	234	236	243
TOTAL	413*	376	416	430	431	407
Patients—						
First admissions	366	389	434	572	467	708‖
Readmissions	35	70	58	76	88	54
Discharges and escapes	108	209	229	264	597	422
Deaths	257	241	222	199	286	312
Remaining, 31st December	2,266	2,248	2,289	2,474	2,146	2,174
Average daily number of patients resident	2,260	2,281	2,261	2,404	2,375	§
Expenditure £	168,820†	205,128†	161,751	140,973	§	§

* Includes staff employed at Robben Island Mental Section. Separate statements in respect of Robben Island Leper and Mental Institutions cannot be given.
† Includes expenditure at Robben Island Mental Hospital.
‡ Including one visiting medical officer.
§ Not available.
‖ This column includes figures for 18 months, i.e. 1st January, 1924, to 30th June, 1925.

(iii) LEPER HOSPITALS—AVERAGE NET COST PER PATIENT PER DIEM, 1919 TO 1923.

Institution.	1919.	1920.	1921.	1922.	1923.
	s. d.	s. d.	s. d.	s. d.	s. d.
Cape of Good Hope—					
Robben Island	5 7*	7 10*	9 5	8 7	8 7
Emjanyana	2 4	3 1	2 8	1 11	2 0
Pondoland	—	—	7 9§	4 0	3 2
Natal—					
Amatikulu	1 3	1 4	1 3	1 2	1 0
Transvaal—					
Pretoria	3 1	3 6	2 11	2 5	2 5
Bochem	1 4	1 9	1 9	1 7	1 6
Union—All Institutions—					
Average net cost per patient per diem	3 6	3 1‡	3 11	3 2	3 0

* Includes expenditure on mentally disordered persons. Separate details of expenditure on lepers at Robben Island not available.
‡ Excluding Robben Island.
§ Opened August, 1921.

(iv) CERTIFIED LEPERS IN UNION—RACE AND SEX, 1913 TO 30th JUNE, 1924.

Year.	European.			Non-European.			Grand Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
1913	121	69	190	1,194	860	2,054	2,244
1914	119	67	186	1,159	847	2,006	2,192
1915	122	65	187	1,170	810	1,980	2,167
1916	126	67	193	1,227	861	2,088	2,281
1917	123	63	186	1,272	874	2,146	2,332
1918	113	62	175	1,212	843	2,055	2,230
1919	111	69	180	1,209	856	2,065	2,245
1920	111	67	178	1,173	897	2,070	2,248
1921	100	66	166	1,207	915	2,122	2,288
1922	92	61	153	1,314	1,007	2,321	2,474
1923	87	56	143	1,170	833	2,003	2,146
Half-year ended 30th June, 1924	88	59	147	1,173	837	2,010	2,157

§ 6. Registration of Medical Practitioners, Dentists, Nurses, and Chemists and Druggists.

1. **Legislation.**—The law in the Provinces of the Union affecting the registration of medical practitioners, dentists, nurses, and chemists has not yet been rendered uniform, and registration in each Province is effected under the laws in force prior to the constitution of the Union. A Medical Council exists in each Province concerned with the work of registering medical practitioners, dentists, midwives, and nurses under the regulations in force; and Pharmacy Councils control the registration of chemists.

2. **Number of Registrations.**—The following tables show the number of medical practitioners, dentists, chemists and druggists, nurses, midwives, and nurses of the insane registered in the Union and in each Province during the years indicated. It should be noted that, as the same person may be registered in more than one Province, the figures given for the Union include some persons enumerated more than once.

MEDICAL PRACTITIONERS, DENTISTS, NURSES, MIDWIVES, ETC., REGISTERED IN THE UNION, 1912 TO 30th JUNE, 1925.

Year.	Medical Practitioners.	Dentists.	Chemists and Druggists.	Nurses.	Midwives.	Nurses of the Insane.
UNION, 1912 TO 30TH JUNE, 1925.						
1912.....	1,934	307	1,061	1,162	756	43
1913.....	2,024	343	1,092	1,259	823	46
1914.....	2,084	364	1,123	1,343	879	52
1915.....	2,056	380	1,124	1,489	984	55
1916.....	2,101	404	1,148	1,655	1,102	56
1917.....	2,132	420	1,162	1,857	1,230	56
1918.....	2,193	437	1,188	2,050	1,360	59
1919.....	2,102	460	1,171	2,250	1,535	63
1920.....	2,234	505	1,194	2,497	1,740	70
1921.....	2,388	550	1,235	2,797	1,998	74
1922.....	2,452	599	1,293	3,082	2,253	81
1923.....	2,587	676	1,348	3,290	2,477	198
As at 30th June, 1924.....	2,651	694	1,369	3,409	2,570	239
As at 30th June, 1925.....	2,762	761	1,399	3,707	2,732	277
PROVINCES, 30TH JUNE, 1924.						
Cape of Good Hope	1,235	297	612	1,681	1,143	203
Natal.....	366	93	235	506	213	29
Transvaal.....	768	237	413	1,181	1,111	7
Orange Free State	282	67	109	41	103	—
TOTAL.....	2,651	694	1,369	3,409	2,570	239
PROVINCES, 30TH JUNE, 1925.						
Cape of Good Hope	1,258	323	597	1,787	1,246	241
Natal.....	370	106	245	552	257	29
Transvaal.....	830	257	435	1,263	1,188	7
Orange Free State	304	75	122	105	41	—
TOTAL.....	2,762	761	1,399	3,707	2,732	277

CHAPTER VIII.

SOCIAL CONDITION.

§ 1. Ecclesiastical.

1. **General.**—The numbers of the population of the Union who returned themselves at the Census of 1921 as belonging to certain Churches and professing certain forms of religious belief are summarized in § 2 (16) of Chapter XXIV. The Churches referred to hereunder are those in respect of which the largest numbers of persons were returned as adherents, and represent 90 per cent. of the European population of the Union. According to the Census, the numbers of Europeans and non-Europeans claiming to belong to the Churches named hereunder and the proportions per cent. of the numbers to the population, were as follows :—

NUMBER OF ADHERENTS OF PRINCIPAL CHURCHES, CENSUS 1921.

CHURCH.	European Adherents.	Proportion per cent. of European Population.	Non-European Adherents.	Proportion per cent. of non-European Population.	All Adherents.	Proportion per cent. of Total Population.
Dutch Churches*.....	838,982	55·21	276,486	5·11	1,115,468	16·09
Church of England.....	294,026	19·35	420,059	7·77	714,085	10·03
Wesleyan Methodist....	102,771	6·76	730,022	13·50	832,793	12·02
Presbyterian.....	74,999	4·94	115,897	2·14	190,896	2·61
Roman Catholic.....	61,246	4·03	82,008	1·52	143,254	2·07
Congregational.....	10,598	0·70	145,723	2·70	156,321	2·26
Lutheran.....	19,098	1·26	241,807	4·47	260,905	3·76

* No Census figures are available to show the distribution of the population between the three independent divisions of the Dutch Churches, the statistics in the later paragraphs of this section being those collected by the different churches.

2. **The Dutch Reformed Church (Nederduits Gereformeerde Kerk).**—The passing by the Union Parliament of Act No. 23 of 1911 gave authority for the union of the branches of the " Nederduits Gereformeerde Kerk " in the various Provinces, and made comprehensive provision in regard to organization, the holding of property, and other matters concerning the united Church and its component congregations.

Organization.—

(*a*) Each of the four Churches (Cape, Natal, Transvaal, and Orange Free State) is ruled by a Synod, possessed of the highest legislative, judicial, and administrative power.

(*b*) To ensure regular working of Church administration, the congregations are mutually divided into Church Districts (or Circles), as fixed from time to time by the Synod.

(*c*) Each congregation has a representative and managing Church Council.

(*d*) There is also a Federal Council, which, guided by certain provisions, interests itself for the general good of the four aforesaid Churches.

(*e*) Arrangements also exist for the connection of Mission Churches with the Dutch Reformed Church.

Theological Training.—Candidates for the Ministry of the Church are trained in the Theological Seminary at Stellenbosch by Professors A. Moorrees, Dr. J. du Plessis, Dr. B. B. Keet, and Dr. Van Rooyen.

Publications.—Almanak van de Nederduits Gereformeerde Kerk in Zuid-Afrika (annual); De Kerkbode (weekly).

Statistics.—The following statistics have been furnished for the year 1923–24 :—

DUTCH REFORMED CHURCH STATISTICS, 1923–24.

	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	No.	No.	No.	No.	No.
European—					
Congregations	188	10	86	65	349
Adherents	345,579	10,366	162,409	133,823	652,177
Members	164,851	5,312	75,118	65,684	310,965
Mission Churches—					
Congregations	71*	6	43	53*	173
Adherents	80,74i	†	44,641‡	35,167‡	160,549
Members	22,777	1,539	13,548‡	11,698‡	49,562

* These figures do not include eleven stations in the Cape Province and ten in the Orange Free State where mission work is done by the Dutch Reformed Church, but where the congregations have not yet joined the Mission Church, that is, placed themselves under the jurisdiction or laws governing the Mission Church. The work there is carried on under the supervision of the local Kerkeraad of the European congregation.

† No statistics available.

‡ Figures for 1922–23 ; none later available.

3. **THE REFORMED CHURCH OF SOUTH AFRICA (DIE GEREFORMEERDE KERK).**—The Reformed Church of South Africa is governed according to the church regulations laid down by the Dordrecht Church Assembly of 1618–19, as far as they can be applied in the various countries, with due regard to the individual requirements of the communities. By the Synod of Steynsburg in 1913, it was decided to review and modify the church regulations of Dordrecht on the basis of the revision adopted by the Reformed Churches in the Netherlands at the Synod of Utrecht in 1905.

According to these church regulations, which do not represent an absolute law for every church or community, the functions of government rest mainly in the hands of every individual "Kerkeraad" or church council for every local congregation. Hitherto it had been the custom for the congregations of every Province of the Union to assemble once annually in General Assembly. This is still the case in the Orange Free State and Cape Province, but a change has been made with regard to the Transvaal. More in agreement with the church regulations referred to above, the Transvaal is divided into four circuits, namely Rustenburg, Pretoria, Potchefstroom, and Middelburg. Representatives of those circuits assemble once or twice in every year to deal with matters which are too difficult for the church council to dispose of. Once a year every circuit sends two representatives to the Provincial Synod, and once in three years the representatives of all church councils assemble for the General Synod. The next Synod will be held at Reddersburg, Orange Free State, in March, 1927. The Reformed Church has no Moderator or permanent Executive.

Every circuit, General Assembly, Provincial Synod, or General Synod at the commencement of its deliberations elects an Executive consisting of four members. At the close of the proceedings the Executive is dissolved.

Every congregation has its correspondent, and every Province has its corresponding church council : for the Transvaal, Potchefstroom ; for the Orange Free State, Bloemfontein ; and for the Cape Province, Burghersdorp.

The training of Ministers takes place at the Theological School at Potchefstroom. Early in 1926 there were three theological professors, viz., Dr. J. D. du Toit, J. A. du Plessis, B.A., and Dr. C. J. H. de Wet.

The *Almanac* for 1926 contains the following church statistics :—

Province.	Congregations.	Confirmed Members.	Baptized Members.	Total.
1. Transvaal	33	11,700	13,160	24,860
2. Orange Free State	20	4,039	4,172	8,211
3. Cape Province	25	4,662	3,593	8,255
4. Natal	4	160	142	302
5. Kenya Colony	1	77	74	151
6. Portuguese West Africa	2	616	812	1,428
TOTAL	85	21,254	21,953	43,207

Mission communities are to be found at Humpata, in Portuguese West Africa; Venterstad, in the Cape Province; and in the Transvaal at Uniondale, Molietsieskop (Zoutpansberg), and Middelbult (Pretoria). The Cape Province looks after the first two and the Transvaal and the Orange Free State after the others.

Twice a month the Church issues *Die Kerkblad*, consisting of twelve pages. The editing is supervised by Dr. J. D. du Toit, Prof. J. A. du Plessis, and the Rev. T. Hamersma. The administration rests with Dr. C. W. M. du Toit, Bloemfontein.

Once a year an *Almanac* is published, edited by Revs. W. J. de Klerk and J. V. Coetzee, Frankfort.

4. **Die Nederduits Hervormde Kerk.**—At the establishment of the South African Republic, Die Nederduits Hervormde Kerk was the only church of the country, and the first Constitution of 1858 provided in section 20 that this church should be the Church of the State. Its first minister, the first in the Transvaal, was the Rev. D. van der Hoff, who arrived in 1853 direct from Holland. In 1885 the church lost a large number of its members through amalgamation with the Dutch Reformed Church (Nederduits Gereformeerde Kerk) founded in 1866.

The baptized members of the church number at the present time about 37,500, and the church has 41 congregations in the Transvaal, 3 in the Orange Free State, 1 in Natal, 1 in Rhodesia, 1 in Tanganyika, 1 in Kenya, 1 in Bechuanaland, and 1 in Portuguese West Africa. The church is served by 21 ministers. Its future ministers are trained at the Transvaal University College in Pretoria, by Professors J. H. J. A. Greyvenstein, Dr. S. P. Engelbrecht, E. Macmillan, M.A., and Dr. B. Gemser. The church publications are represented by a monthly paper, *De Hervormer*, and a Church Almanac which appears annually. The church has also an orphanage at Krugersdorp.

Die Hervormde Kerk is governed according to Presbyterian Church regulations by a General Church Assembly, which meets at least once every three years, and in the intervening periods by a Commission of the General Church Assembly; and further by the three Circuits, into which the Province is divided, and by the individual church councils concerned.

The history of the church is recorded up to 1890 by Prof. Dr. S. P. Engelbrecht in "De Geschiedenis van de Ned. Hervormde Kerk," two volumes, 1920 and 1925.

5. **English Church.**—(i) *Organization and Government.*—The official title of the English Church in South Africa is the Church of the Province of South Africa (otherwise known as the Church of England), and it is in communion with the Church of England and the other Provinces of the Anglican Communion throughout the world. It is a voluntary association, and has its own constitution and its own rules and regulations. It is governed by a Provincial Synod, in which every Diocese in the Province has its representatives, both clergy and laity, and no resolution, rule, canon, or constitution is regarded as a law of the Church of the Province but such as shall have received the concurrent assent of all orders of the Church—bishops, priests, and laymen. The Church of the Province is divided into twelve Dioceses constituted in the following years: Cape Town, 1847; Grahamstown, 1853; Natal, 1853; St. Helena, 1853; Bloemfontein, 1863; Zululand, 1870; St. Johns, 1873; Pretoria, 1878; South Rhodesia, 1891; Lebombo, 1893; George, 1911; Kimberley and Kuruman, 1912; Johannesburg, 1922. A new Missionary Diocese was constituted in 1924 under the title of Damaraland and the tribes towards the North. Each of the above Dioceses has the right to send clerical and lay representatives to the Provincial Synod on the basis of one of each order for every ten (or part of ten) licensed priests in the Diocese. The enactments of the Provincial Synod are binding upon all members of the Church in South Africa, though it is expressly stated in Article II of the Constitution that the Provincial Synod of the Church of the Province shall be subordinate to a higher authority of a General Synod of the Church of the Anglican Communion, to which such Province shall be invited to send representatives whenever such General Synod shall be convened. The Church of the Province has accepted the General Consistory of the Lambeth Conference as its Court of Final Appeal. The organization of the various Dioceses is very similar to that of the Province. All the Dioceses have their Synods, but the Diocesan Synods only exercise powers delegated from the Provincial Synod, and all acts and resolutions passed by the Diocesan Synods are subject to revision by the Provincial Synod. There are at the present time some 600 clergy working in the Province, of whom the majority are employed in parochial or missionary work, but some few are engaged in educational and extra-parochial work. There being very little in the way of endowment, the work of the Churches depends almost entirely upon the free-will offerings of its members.

(ii) *Colleges and Schools.*—In connexion with the Church there are several schools and colleges for European boys and girls. Of these the principal are, for boys, the Diocesan College, Rondebosch, Cape Town; S. George's Cathedral Grammar School, Cape Town; S. Andrew's College, Grahamstown; Michaelhouse, Balgowan, Natal; S. John's College, Johannesburg; S. Andrew's College, Bloemfontein; and for girls, S. Cyprian's, Cape Town;

Herschel, Claremont (Cape); the Diocesan School for Girls, Grahamstown; the Diocesan School for Girls, Pretoria; S. Margaret's, S. Aidan's, Yeoville, and S. Mary's, Belgravia, Johannesburg; S. Anne's, Hilton Road, Pietermaritzburg; S. Margaret's Diocesan Girls' School, Umtata; S. Michael's School for Girls, Bloemfontein; several schools under the charge of the Society of S. John the Divine, Natal; S. Winifred's School for Girls at George; and a school at Lourenco Marques.

In addition to these, there are the training college for teachers, and several schools under the direction of the Community of the Resurrection at Grahamstown. There are various training colleges for native clergy and teachers, the chief of which are at Zonnebloem, Cape Town; S. Matthew's Training College, Keiskama Hoek; S. Alban's College, Estcourt, Natal; S. Bede's, Umtata; Diocesan Training College, Pietersburg, Transvaal; the College of the Resurrection, Johannesburg; and at S. Augustine's, Kwa Magwaza, Zululand. There is also at Grahamstown a training college for European clergy at S. Paul's hostel, and a newly established one for coloured clergy at S. Austin's, Cape Town.

The Church of the Province is also doing much in the education of the native and coloured people, and there are hundreds of mission schools throughout the Union of South Africa. There is a strong organization of the Church Lads' Brigade among the coloured in the Cape district; and lately a hostel has been founded at Fort Hare, the Government establishment for the higher education of natives. For sailors, it provides homes and chaplains of the Seamen's Institute at Cape Town, Port Elizabeth, Lourenco Marques, and Durban. Work has been carried on for many years among the lepers of Robben Island, and more recently, S. Raphael's Home, Faure, Stellenbosch, has been established for discharged lepers.

(iii) *Hostels and Houses of Mercy.*—Of the works of mercy connected with the Church there are three Houses of Mercy—at Leliebloem, Cape Town; Irene, Transvaal; and at S. Monica's, Queenstown. There are also the Marion Institute and a Home for friendless girls at Cape Town, and S. Monica's Maternity Home.

There are several orphanages and homes for children. Of these the principal are: S. Michael's Home, Cape Town; S. George's Orphanage, Cape Town (for girls); House of Bethany, Plumstead, Cape Town (for girls); the Woodville Orphanage, Grahamstown; S. John's Hostel, a hostel for boys attending school in Cape Town, and S. Francis (coloured), Cape Town (for boys); S. George's Orphanage, Cleveland, Transvaal (for boys).

(iv) *Sources of Revenue.*—In South Africa itself the Church raises about £174,000 yearly. Of this a sum of close on £23,000 is received from endowments, but by far the greater part is derived from church collections and subscriptions. In addition to this, an amount of about £30,000 is sent from overseas, but this is employed almost entirely on missionary work among the native peoples.

Full particulars in connection with the Church, such as the names of the Bishops and clergy, are given in the *S.A. Church Directory*, 1921, published at the English Church House, 61 Burg Street, Cape Town.

6. **Wesleyan Methodist Church of South Africa.**—Wesleyan missions were first founded at the Cape of Good Hope in 1816, by the Wesleyan Methodist Missionary Society, London, and since then have been established throughout the whole of South Africa up to, and beyond, the Zambezi River. The advent of the British settlers in 1820 made it necessary to provide religious services for the scattered European population, and this led in due course to the formation of European churches throughout the area of settlement. These churches and missions remained under the control of, and continued to be supported by, the parent society in London until 1883, when a separate South African Conference was established, and all the missions and churches south of the Vaal River were placed under its jurisdiction, under the title of the *Wesleyan Methodist Church of South Africa.* The work in the areas north of the Vaal River still continues under the control of the Missionary Society in London (see below).

(i) *Organization.*—The area under the jurisdiction of the South African Conference is divided into six districts. These again are divided into smaller areas as circuits, each under the oversight of a superintendent minister, or missionary. The administration of each district rests with an annual synod composed of representatives, ministerial and lay, of all the circuits within the district. The supreme legislative and executive authority is vested in the Annual Conference, which is composed of representatives elected by the various district synods and other official members appointed by the Conference itself.

(ii) *General Statistics.*—At the Conference held at Port Elizabeth in April, 1925, the following official returns were reported :—

	No.
Churches	1,660
Other preaching places	3,013
Ministers	277
Evangelists	310
Local preachers	5,198
Other unpaid agents	10,714
Sunday Schools :	
Schools	1,115
Officers and teachers	3,157
Scholars	45,352

(Income, £5,236.)

	No.
Church members	113,610
Candidates for Church membership	49,710
Junior (catechumen) members	50,281
Increase of Church members during the year	1,394
Day schools (native, coloured, and Indian) :	
Schools	1,077
Teachers	2,155
Scholars	75,196

(Income, £121,336.),

Native Training and Industrial Institutions :

	No.
Institutions	11
Teachers	110
Pupils	2,782

(Income, £44,363.)

English Secondary Schools :

	No.
Schools	5
Teachers (resident)	68
Scholars	815

(Income, £42,259.)

Sustentation and Mission Fund :

Total contributions	£17,304
Total revenue for all purposes, including Education	£312,509

Invested funds (Superannuation and other)	£199,871
Total estimated value of land and buildings at last valuation (1921)	£1,000,000

(iii) *Wesleyan Methodist Church in the Transvaal.*—The Wesleyan Methodist Church is organized north of the Vaal River as the *Transvaal and Swaziland District*, under a synod, of which the chairman and general superintendent is the Rev. J. W. Allcock. The district is under the control of the Wesleyan Church in England.

(iv) *General Statistics for Transvaal District.*—The following general statistics are furnished in respect of the year 1924 :—

Number of churches—		
European	78	
Native	445	
Coloured Colonial	9	
Total		532
Number of other places for religious services		847

Number of ministers—		
European	50	
Native	52	
Coloured	1	
Total		103
Number of adherents—		
European	31,585	
Native and coloured	80,963	
Total		112,548

Income of Church (1924) £63,468*

(v) *Institutions in the Transvaal.*—There are four institutions connected with the Wesleyan Methodist Church in the Transvaal : the Epworth Homes at Malvern, Johannesburg, Sunnyside, Pretoria, and Benoni, for European children, and a native training institution at Kilnerton, near Pretoria. At the latter institution native normal students are trained, and the number now receiving instruction is upwards of two hundred. A school of native agriculture is also established at Kilnerton. Social and religious work on a fairly large scale is vigorously prosecuted at the Central Hall, Johannesburg.

7. Presbyterian Church of South Africa.—(i) *Organization.*—The Presbyterian Church of South Africa is governed by its General Assemblies held annually, under a Moderator elected by the Assembly. The Moderator for 1924–25 was the Rev. Wm. Turnbull, M.A., Ladysmith, Natal, and for 1925–26 the Rev. T. R. Ballentine, B.A., Durban. The General Assembly is constituted of representatives of the seven Presbyteries of the Union, viz. : Cape Town, King William's Town, Natal, Orange River, Orange River Native, Port Elizabeth,† Transvaal, and the Presbytery of Rhodesia.

* Exclusive of Government grants for education, etc.
† Formerly the Presbytery of Adelaide.

The following figures give particulars in respect of two years.

PRESBYTERIAN CHURCH—STATISTICS FOR UNION.

Description.	1923.	1924.	Description.	1923.	1924.
	No.	No.		£	£
Congregations	*153	*153	Value of Church property †	369,777	371,782
European members	13,273	13,537	Amount raised for the Church in year	71,617	63,821
European adherents	7,175	7,596	Amount spent on native mission work	4,838	4,172
European children in Sunday schools	8,938	8,417	Amount raised by natives	2,562	2,418
Native members	4,465	4,380	Invested Funds ‡	76,119	82,535
Catechumens	1,158	884			
Mission schools	26	26			
Pupils in mission schools	1,061	1,026			

NOTE.—On the formation of the Bantu Presbyterian Assembly in 1923, the Presbyteries of Kaffraria and Mankazana became detached from the Presbyterian Church of South Africa. Hence the great reduction in the figures recording the membership and finance of the Church's native mission work. The figures given now indicate exactly what is being done by the Presbyterian Church of South Africa from its own resources and without any subsidy from oversea for the evangelizing of South African natives.

* Congregations, including mission charges, 93; preaching stations, 60.
† Including orphanage.
‡ Including capital of Widows' Fund, Aged Ministers' Fund, etc.

The Church has erected, at a cost of £15,000, and maintains, at Queenstown (Cape Province), an orphanage for the accommodation of ninety children.

In July, 1923, the Bantu Presbyterian Church was formed.

(ii) *Historical Sketch.*—The first Presbyterian Church in South Africa was organized in Cape Town in 1813 by the Rev. George Thom, and included in its congregation a considerable number of units from the 93rd Regiment stationed at the Cape, as well as civilians. The regiment, however, left the following year, and in 1818 Mr. Thom became minister of the Dutch Church at Caledon. In 1820 the congregation called the Rev. Dr. Philip to the pastorate, but to meet his views a congregational platform was adopted and the church thereafter ceased to be Presbyterian. In 1827, under the Rev. Dr. Adamson, the Church of St. Andrew's, Cape Town, the oldest Presbyterian congregation in the Union, was established, and in 1838 a Mission for liberated slaves was instrumental in founding the coloured Presbyterian congregation of St. Stephens in Riebeek Square.

The Presbytery of Cape Town, formed in 1893, originally consisted of the parent church of St. Andrew's, with the congregations of the Gardens, Woodstock, and Clifton Hill churches. These had started as branches under the St. Andrew's session. This Presbytery now includes eight European congregations and a native church, and maintains a Home Mission in Cape Town.

The Presbytery of Port Elizabeth (until recently Adelaide) has as its leading congregation the Hill Church in Port Elizabeth. This church, founded in 1861, inaugurated and helped to establish churches in both the South and North Ends of the town. Other congregations of the Presbytery are Glenthorn (1840) and Tarkastad, both associated with Mission work, and on this account these churches have received financial aid for many years from Mission Committees in Scotland.

The Presbytery of King William's Town.—This Presbytery, constituted in 1898, is composed for the most part of the European congregations previously belonging to the Presbytery of Kaffraria, and consists of ten European and three Mission congregations.

Presbytery of Natal.—The pioneer of Presbyterianism in Natal was the Rev. Wm. Campbell, who, sent out by the Free Church of Scotland, was called to and settled in Pietermaritzburg in 1851. He, together with the Rev. Chas. Scott, of Pinetown, and the Rev. D. Lindley, an American missionary, formed the Presbytery of Natal in 1852. This is the oldest Presbytery of Colonial Churches in South Africa, and now consists of seventeen European congregations. It was in connexion with this Presbytery that the original congregations of the Orange River and Transvaal Presbyteries were established.

The Presbytery of the Orange River was formed in 1898, the church at Harrismith, established in 1881, being the oldest Presbyterian Church in the Orange Free State Province. The congregation at Kimberley, founded in 1878, joined the Assembly in 1902 and was then united to the Presbytery of the Orange River. This Presbytery consists of twelve European congregations and several preaching stations.

The Presbytery of the Transvaal was constituted in 1890. The first Presbyterian minister to settle in the Transvaal was the Rev. Andrew Allen, who was inducted in Johannesburg in 1887. The church at Pretoria was founded in the same year as the Presbytery was constituted, there being then four congregations. This number has since increased to seventeen, all European, and some preaching stations. A Native Mission and several native congregations are attached to the Presbytery.

The Presbytery of Rhodesia, formed in 1907, contains three European congregations, the oldest being Bulawayo, established in 1898. A Native Mission was founded in 1908.

(iii) *General Assembly.*—The formation of a General Assembly at Durban in 1897, under the Moderatorship of the Rev. John Smith, introduced a new era into the history of Presbyterianism in South Africa. The movement first took practical shape at a conference held in Kimberley in 1892, when a Federal Council was formed, which met annually between the years 1893 and 1897 and prepared a basis for Union. The newly formed church comprised the four Presbyteries of Natal, Transvaal, Cape Town, and Kaffraria (now incorporated in the Bantu Presbyterian Assembly), and the congregation of Port Elizabeth. Altogether twenty-six European and nine native congregations were included. There are now eight Presbyteries, consisting of seventy-four European and twenty-six native congregations connected with the Assembly.

8. **Roman Catholic Church.**—The Union contains the following ecclesiastical divisions of the Church :—

Delegate Apostolic—
The Most Rev. Jordan Gijlswijk, O.P., Titular Archbishop of Euchaita, Bloemfontein.
Western Vicariate, Cape Province—
Vicar-Apostolic : The Right Rev. Bernard O'Riley, D.D., St. Mary's Cathedral, Cape Town.
Eastern Vicariate, Cape Province—
Vicar-Apostolic : The Right Rev. Hugh MacSherry, D.D., St. Augustine's, Port Elizabeth.
Central Prefecture, Cape Province—
Prefect-Apostolic : The Right Rev. F. Hennemann, Church of St. Saviour's, Oudtshoorn.
Gariep Prefecture—
Prefect-Apostolic : The Right Rev. Mgr. Demont, Aliwal North, Cape Province.
Mariannhill Vicariate—
Vicar-Apostolic : The Right Rev. A. Fleischer, R.M.M., the Monastery, Mariannhill, Natal.
Natal Vicariate—
Vicar-Apostolic : The Right Rev. Henry Delalle, D.D., O.M.I., Emmanuel Cathedral, Durban.
Vicariate of Eshowe—
Vicar-Apostolic : The Right Rev. T. Spreiter, O.S.B., Inkamana, P.O. Vryheid.
Vicariate of the Transvaal—
Vicar-Apostolic : The Right Rev. David O'Leary, D.D., O.M.I., the Immaculate Conception, Johannesburg.
Prefecture-Apostolic of Northern Transvaal—
Prefect-Apostolic : The Right Rev. Mgr. S. Nuffel, Pietersburg.
Lydenburg Prefecture—
Prefect-Apostolic : The Right Rev. Mgr. D. Kanczor.
Vicariate of the Orange River—
Vicar-Apostolic : The Right Rev. John Simon, D.D.
Vicariate of Basutoland—
Vicar-Apostolic : The Right Rev. Julius Cénez, O.M.I., Roma.
Prefecture of Swaziland—
Prefect-Apostolic : The Right Rev. Mgr. M. Bellezze, O.S.M., Bremersdorp, Swaziland.
Prefecture of Windhoek—
Prefect-Apostolic : The Right Rev. J. Gotthardt, O.M.I., Windhoek.

General Statistics.—The following figures are given for the year 1925 :—

	No.		No.
Bishops*	11	Churches, chapels, and stations	260
Prefects-Apostolic	5	Convents	35
Priests	251	Communities	15
Religious Brothers	305	Colleges and schools	262
Nuns	1,774	Other institutions	7

* Two on the retired list : Bishop Rooney of Cape Town and Bishop Cox of Johannesburg.

9. **Congregational Churches.**—The Congregational, or Independent, Churches in South Africa have been closely connected during a century with the London Missionary Society, which, though unsectarian, has generally been associated intimately with Congregationalism. The chairman for 1924–25 was Mr. Wm. Anstey, P.O. Box 1003, Johannesburg, and for 1925–26 the Rev. G. Crawford Stanley, M.C., Congregational Church, Bree Street, Johannesburg; treasurer, E. K. Mackay, Esq., P.O. Box 5632, Johannesburg; secretary, R. J. Johnson, Esq., M.A., Central Congregational Church, Bree Street, Johannesburg.

General Statistics.—The following figures give information for the year 1924–25:—

Number of	ministers	77
,,	lay preachers	755
,,	buildings	412
,,	Church members	24,972
,,	children in Sunday schools	8,853
,,	teachers in Sunday schools	700

*10. **The Jewish Community.**—(i) *Congregations.*—There are about 150 congregations in the Union. Most congregations have their special places of worship. Each congregation has its official who ministers to its religious needs. Johannesburg and Cape Town have their Rabbis, who possess the rabbinical diploma, and rank as the highest authorities in religious matters; congregations of lesser size have ministers and preachers, who, although specially trained to the religious calling and qualified to carry out their religious duties, have not attained to rabbinical rank. The smallest congregations have *readers* and *shochtim* (a *shochet* is a person qualified to kill animals for human consumption in accordance with the Jewish method of slaughter), who conduct the services and teach the children.

(ii) *Educational Activities.*—There are nineteen special Hebrew schools in South Africa, seven of which are in Johannesburg. In the smaller communities, where there are no special Hebrew schools, Hebrew classes are held in the synagogues and conducted by the local minister, so that religious instruction is carried on in practically every Jewish community in South Africa.

(iii) *Charitable Institutions.*—In the field of charity the South African Jewish community has displayed considerable activity. The community looks after its own poor. There is hardly a town of any appreciable size that has not its Jewish helping hand or benevolent society. Johannesburg has sixty-eight Jewish institutions in all, and no less than thirty-eight of them are either partly or solely charitable institutions. The majority of the thirty-eight are friendly sick benefit and benevolent societies. The chief Jewish charitable institutions in South Africa are the South African Jewish Orphanage in Johannesburg, the Cape Jewish Orphanage in Cape Town, the Jewish Aged Home, the Jewish Helping Hand and Burial Society, and the Hebrew Benevolent Association in Johannesburg, and the Jewish Board of Guardians in Cape Town. Apart from the congregations, educational, charitable, and friendly societies mentioned, the other Jewish institutions in Johannesburg are Zionist, cultural, social, and intellectual. Although not so numerous as in Johannesburg, there are Jewish institutions in Cape Town devoted to similar objects, whilst towns like Pretoria, Bloemfontein, Durban, Port Elizabeth, Kimberley, Oudtshoorn, East London, and Paarl also possess Jewish cultural, social, and friendly societies.

(iv) *Jewish Board of Deputies.*—There are two institutions that are South African organizations. They have constituent societies in the various towns in South Africa and their head offices are in Johannesburg. They are the South African Jewish Board of Deputies and the South African Zionist Federation. The Jewish Board of Deputies for the Transvaal and Natal held its inaugural meeting on 28th July, 1903. The following year a similar Board for Cape Colony was formed in Cape Town. Each led a separate existence until 1912, when, at a South African Congress held in Bloemfontein, both were merged into the present South African Board. The objects of the Board of Deputies are to "watch and take action in such a manner as it may think proper with reference to all matters affecting the welfare of the Jews in the southern portion of the Continent of Africa," and "to make observation of all proceedings relative to legislative and other enactments and to use such means as it may deem requisite in order that no infraction of the rights, custom, and privileges of the Jewish community may ensue therefrom." The Board of Deputies has 112 constituent bodies throughout South Africa.

(v) *Zionist Movement.*—The Zionist Federation to-day embraces 180 affiliated Zionist societies and other Jewish bodies, situated in all parts of the sub-continent, whilst it has hundreds of representatives in smaller communities where no organized society exists. It has so far held nine conferences. It publishes an official monthly organ, *The Zionist Record*, which has a large circulation throughout the country, and is the only publication which bears an official Jewish character. The South African Zionist Federation acts in all matters

* Information supplied by the Secretary, South African Jewish Board of Deputies.

as the official South African Branch of the world Zionist organization. Its main business is to propagate the principles of the Zionist Movement amongst the Jewish population, to foster a knowledge of the Hebrew language, history, and culture, and to raise funds for the furtherance of the objects of the Zionist Movement, whilst it engages either singly or in co-operation with other organizations in various activities designed to further general Jewish welfare.

In the discovery and development of the diamond and gold fields Jews played an important part. The names of Barnato, Joel, Beit, Albu, and the late Senator S. Marks are well known in this connexion.

(vi) *Statistics.*—The following table shows the number of Jews in the various Provinces of the Union as ascertained at the Censuses of 1911 and 1921 respectively :—

JEWS IN THE UNION, CENSUSES OF 1911 AND 1921.

Province.	1911.			1921.		
	Male.	Female.	Total.	Male.	Female.	Total.
Cape	9,378	7,359	16,737	11,396	9,846	21,242
Natal	816	666	1,482	1,420	1,165	2,585
Transvaal	15,847	10,045	25,892	18,509	15,006	33,515
Orange Free State	1,779	1,029	2,808	2,738	2,023	4,761
UNION	27,820	19,099	46,919	34,063	28,040	62,103

§ 2. Benevolent Institutions and Organizations.

1. **General.**—The Union has no lack of benevolent organizations in country districts, as well as in the towns, and seeing that there is no poor law in any of the Provinces, and that poor relief by the State has only been necessary on any considerable scale in such circumstances as existed in the period of depression which followed the South African War, and on certain other exceptional occasions, the greater part of assistance given to persons in poverty and distress is that afforded by the various benevolent institutions. It has also to be noted, however, that in all the larger towns and in many other localities public general hospitals have been established, supported in a few cases altogether, and in most cases at least in part, by the State, which also (see Chapter VII) provides and controls hospitals for the mentally diseased and hospitals and institutions for lepers. Exigencies of space make it impossible to enumerate the various benevolent organizations to be found throughout the country, but it may be noted that, apart from the benevolent institutions belonging to the various churches (see § 1 above) and the smaller organizations attached to individual churches in most localities, there are in various towns such organizations as the following :—Ladies' benevolent societies, aid associations, children's homes and orphanages, children's aid societies, Salvation Army homes, social farms, rescue homes, and other institutions maintained by the Army organization ; homes for the aged and the poor, Nazareth homes, convalescent homes, local representation of the St. Vincent de Paul Society, and Jewish and other benevolent societies.

2. **Government Expenditure on Poor Relief.**—Particulars are given in the subjoined tables as to expenditure by the Administration in each Province for a period of years on relief of paupers, the maintenance of certain institutions for the accommodation of poor persons suffering from chronic infirmities, and grants-in-aid of certain other non-Government benevolent institutions :—

GOVERNMENT EXPENDITURE ON PAUPER RELIEF AND GRANTS TO BENEVOLENT INSTITUTIONS, 1917–18 TO 1923–24.

(i) UNION.

PROVINCE.	1917–18.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£	£
Cape of Good Hope	24,111	29,087	35,431	56,200	42,075	49,575	40,137
Natal	4,282	5,364	7,061	7,872	8,967	9,435	12,405
Transvaal	46,308	47,217	51,953	73,942	75,231	79,234	69,939
Orange Free State	16,827	21,036	23,871	25,818	27,397	23,972	24,066
TOTAL.....£	91,528	102,704	118,316	163,832	153,670	162,216	146,547

(ii) CAPE OF GOOD HOPE.

Description of Expenditure and Name of Institution.	1917–18.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£	£
Pauper Relief.....	20,256	24,711	28,696	50,166	32,506	36,048	29,020
Grants-in-Aid of Charitable Institutions and Organizations.....	3,855	4,376	6,735	6,034	9,569	13,527	11,117
TOTAL.....£	24,111	29,087	35,431	56,200	42,075	49,575	40,137

(iii) NATAL.

	£	£	£	£	£	£	£
Pauper Relief.....	1,582	1,889	2,126	2,337	2,432	2,436	2,845
Grants-in-Aid of Charitable Institutions and Organizations*.....	2,700	3,475	4,935	5,535	6,535	6,999	9,560
TOTAL.....£	4,282	5,364	7,061	7,872	8,967	9,435	12,405

(iv) TRANSVAAL.

	£	£	£	£	£	£	£
Poor Relief.....	32,525	24,606	26,807	33,396	32,243	29,628	30,965
Rietfontein Hospital	3,626	10,935	11,445	14,176	14,821	12,445	12,202
Grants-in-Aid of Charitable Institutions and Organizations.....	10,157	11,676	13,701	26,370	28,167	37,161	26,772
TOTAL.....£	46,308	47,217	51,953	73,942	75,231	79,234	69,939

(v) ORANGE FREE STATE.

	£	£	£	£	£	£	£
Pauper Relief.....	9,797	10,606	13,591	11,000	12,819	12,839	12,682
National Hospital, Bloemfontein....	6,100	9,500	9,400	13,818	13,818	10,433	10,684
Grants-in-Aid of Charitable Institutions and Organizations.....	930	930	880	1,000	760	700	700
TOTAL.....£	16,827	21,036	23,871	25,818	27,397	23,972	24,066

* Grants to orphanages have been omitted from these figures. In 1918–19 and 1919–20 the payments to orphanages amounted to £1,850; 1920–21, 1921–22, and 1922–23, £2,500.

3. **Charitable Institutions.**—The following particulars are furnished in respect of all Government, Government-aided, and Private Institutions in the Union, the object of which is to afford relief, protection, or shelter to those persons who are in distress, in need of succour, or homeless. Such institutions include orphanages, childrens' homes, creches, homes for convalescents, aged, or infirm persons; institutions for decrepit and chronic sick persons, rescue homes, shelters for men and women, almshouses, and kindred institutions, but do not include benevolent or friendly societies, charity organizations, hospitals, maternity homes, sanatoriums, lazarettos, or infectious diseases hospitals.

(i) CHARITABLE INSTITUTIONS IN THE UNION FROM 1918–19 TO 1923–24.

Year.	Number of Institutions.	Staff.		Accommodation. Number of Beds.		Inmates at End of Year.		Revenue.	Expenditure.
		European.	Non-European.	European.	Non-European.	European.	Non-European.		
								£	£
1918–19	101	632	195	5,893	592	4,889	344	203,449	238,683
1919–20	118	702	215	6,484	565	6,088	414	249,144	287,319
1920–21	152	792	318	7,872	762	11,033	590	379,009	399,085
1921–22	153	814	304	8,413	795	8,372	616	368,999	396,727
1922–23	132	779	316	7,884	745	7,484	714	342,084	359,050
1923–24	164	919	405	9,835	1,046	9,106	812	396,119	399,224

(ii) NUMBER OF INSTITUTIONS, STAFF, AND ACCOMMODATION, 1923–24.

Province.	Number of Institutions.	Staff.		Accommodation.		
		European.	Non-European.	Number of Wards, Dormitories, or Single Rooms.	Number of Beds. For Europeans.	Number of Beds. For non-Europeans.
Cape of Good Hope	91	442	181	893	5,089	794
Natal	33	147	84	228	1,311	236
Transvaal	32	259	105	485	2,530	16
Orange Free State	8	71	35	110	905	—
TOTAL	164	919	405	1,716	9,835	1,046

(iii) ADMISSIONS AND DISCHARGES ACCORDING TO PROVINCES, 1923–24.

Province and Race.	Admissions during Year.		Discharges, Deaths, etc., during Year.		Remaining at End of Year.	
	Adults.	Children.	Adults.	Children.	Adults.	Children.
Cape of Good Hope—						
European	48,793	1,308	48,771	1,197	805	3,628
Non-European	25,542	178	25,610	142	222	332
Natal—						
European	17,879	285	17,835	261	400	689
Non-European	—	42	—	49	—	248
Transvaal—						
European	30,748	1,020	30,731	769	445	2,074
Non-European	365	9	365	—	1	9
Orange Free State—						
European	9,468	194	9,457	125	43	1,022
Non-European	—	—	—	—	—	—
TOTAL	132,795	3,036	132,769	2,543	1,916	8,002

(iv) ADMISSIONS, DISCHARGES, ETC., REVENUE AND EXPENDITURE ACCORDING TO CLASSES OF INSTITUTION, 1923–24.

Class of Institution and Race.	Number of Institutions.	Admissions during Year.		Discharges, Deaths, etc., during Year.		Remaining at End of Year.		Revenue.	Expenditure.
		Adults.	Children.	Adults.	Children.	Adults.	Children.		
								£	£
Orphanages—									
European.....	65*	94	1,251	77	972	280	5,511	206,710	213,303
Non-European		—	76	—	66	—	424		
Homes for Aged Persons—									
European.....	19	163	—	142	—	603	2	61,795	57,088
Non-European		11	1	14	—	42	1		
Rescue Homes—									
European.....	12	163	202	158	167	122	149	14,702	14,829
Non-European		55	41	82	36	30	15		
Children's Homes—									
European.....	22	—	461	—	427	2	1,006	30,185	29,703
Non-European		—	27	—	15	—	57		
Other Institutions—									
European.....	46	106,468	893	106,417	786	686	745	82,727	84,301
Non-European		25,841	84	25,879	74	151	92		
TOTAL.....	164	132,795	3,036	132,769	2,543	1,916	8,002	396,119	399,224

* Six Orphanages are also Homes for Aged Persons.

(v) CHARITABLE INSTITUTIONS—REVENUE AND EXPENDITURE, 1923–24.

Revenue.

Province.	Government and other Grants.	Fees from Inmates.	Collections, Subscriptions, and Donations.	Other Revenue.	Total Revenue.
	£	£	£	£	£
Cape of Good Hope.	67,336	21,252	40,403	38,775	167,766
Natal.....	12,321	10,055	17,890	8,541	48,807
Transvaal.....	41,948	6,341	79,097	13,841	141.227
Orange Free State..	12,400	1,141	21,319	3,459	38,319
GRAND TOTAL..£	134,005	38,789	158,709	64,616	396,119

Expenditure.

Province.	Salaries and Wages.	Maintenance of Inmates.	Buildings.	Other Expenditure.	Total Expenditure.
	£	£	£	£	£
Cape of Good Hope.	31,797	108,384	17,316	21,596	179,093
Natal.....	10,386	26,785	5,593	9,449	52,213
Transvaal.....	24,660	60,412	10,497	48,096	143,665
Orange Free State..	4,484	17,645	1,059	1,065	24,253
GRAND TOTAL..£	71,327	213,226	34,465	80,206	399,224

(vi) PARTICULARS OF CHARITABLE INSTITUTIONS IN CERTAIN TOWNS IN THE UNION, 1923–24.

Description.	Number.	Inmates at End of Year.		Average Daily Number of Inmates.		Revenue.	Expenditure.
		European.	Non-European.	European.	Non-European.		
						£	£
Cape Town.							
Orphanages	12	833	167	791	167	33,492	35,924
Homes for Aged Persons	6	155	—	153	—	7,443	5,196
Rescue Homes	4	41	45	40	36	4,068	4,466
Children's Homes	4	36	57	33	54	3,690	3,880
Other Institutions	15	442	191	411	202	33,044	32,103
Durban							
Orphanages	8	466	157	452	164	17,947	18,235
Homes for Aged Persons	1	13	—	12	—	1,271	1,271
Rescue Homes	1	22	—	16	—	767	786
Children's Homes	1	8	—	12	—	173	492
Other Institutions	5	214	—	265	—	14,071	13,596
Johannesburg.							
Orphanages	9	1,557	9	1,555	6	69,177	72,370
Homes for Aged Persons	2	149	—	139	—	35,447	32,472
Rescue Homes	1	74	—	69	—	5,367	5,394
Children's Homes	2	75	—	77	—	2,734	2,465
Other Institutions	7	312	1	303	1	14,792	16,238
Pretoria.							
Orphanages	2	43	—	42	—	1,525	1,525
Homes for Aged Persons	1	20	—	20	—	527	654
Rescue Homes	1	44	—	20	—	980	642
Children's Homes	1	58	—	48	—	2,828	2,487
Other Institutions	2	82	—	86	—	5,555	4,980

4. **Benevolent Institutions in Cape Peninsula and Johannesburg.**—The first four issues of this *Year Book* contained lists of benevolent institutions in the Cape Peninsula and Johannesburg. These have not been repeated owing to considerations of space.

5. **The Governor-General's Fund.**—Previous issues of this *Year Book* (Nos. 1 to 5) contained particulars of the operations of the Governor-General's Fund inaugurated in September, 1914, with the object of relieving distress caused to persons on active service during the war or to their dependents resident in the Union. The fund continued in existence after the termination of hostilities, and the large sum collected, amounting in the aggregate to about £3,250,000, was gradually disbursed in aid of disabled soldiers and the widows and families of soldiers who had lost their lives in the war. The vocational training of ex-soldiers was largely furthered in the period after the war. Revenue from investments and contributions during 1923 amounted to £38,626, and the disbursements £76,895. At the 31st December, 1923, the balance of the fund amounted to £695,035 and at the same date in 1924, at £670,137.

6. **The Administrator's (Transvaal) Distress Fund.**—Particulars of this fund, which was established after the Witwatersrand disturbances in March, 1922, in order to relieve distress consequent thereon, will be found in the sixth issue of this *Year Book*.

7. **South African Prisoners' Aid Association.**—This Association, under the presidency of His Excellency the Governor-General and the chairmanship of the Director of Prisons, was formed in 1910 with the following objects:—

(*a*) The prevention of recidivism (or relapse into crime).
(*b*) To encourage the study of causes underlying crime and recidivism and to conduct public propaganda.
(*c*) The aftercare of discharged prisoners.
(*d*) To help the deserving dependents of prisoners.
(*e*) To take any steps necessary for the prevention of delinquency and the manufacture of criminals.
(*f*) To establish branches and appoint representatives wherever necessary.
(*g*) To carry out all measures required to give effect to any of the above objects.

(i) *Organization.*—The Association consists of members organized in branches in the principal centres of the Union, the directing control being vested in a Central Council consisting of the Chairman of the Association and two members nominated by each branch, which in turn works through its local committee. The fact that the Chairman of the Central Council is appointed by the Minister of Justice enables the Association to be kept in close touch with the Government. A grant is made quarterly by the Prisons Department to supplement funds raised locally by each branch for the purposes of its work. The allocation of the grant to the branches is made by the Central Council on the basis of the needs of the local work as reflected in the statistical and financial returns. In addition to the allocation of grants, the Central Council considers and shapes the whole policy of the Association. It initiates new work and represents the views and needs of the Association to the Government.

(ii) *Statistics.*—The following tables give statistics as to the operations of the Association :—

PRISONERS' AID ASSOCIATION.

(*a*) MEMBERSHIP AND RECEIPTS, 1924.

Branch.	Supporters.	Members.	Local Receipts.	Government Grant.	Total Receipts.
			£ s. d.	£	£ s. d.
Bloemfontein	22	27	40 15 0	120	202 10 1
Cape Town	166	270	162 4 0	440	647 4 5
Durban	14	109	219 19 2	150	491 1 6
Pietermaritzburg	31	103	46 13 9	122	174 16 9
Johannesburg	164	138	354 17 10	990	1,446 16 4
Kimberley	108	19	15 18 0	98	115 8 0
Port Elizabeth	10	11	30 4 11	55	93 17 9
Pretoria	182	138	120 8 2	595	834 13 1
TOTAL	697	815	£991 0 10	£2,570	£4,006 7 11

(*b*) EXPENDITURE, 1924.

Heading.	On Prisoners.	On Dependents.	Salaries, Office Expenses, etc.	Total.
	£	£	£	£
All Branches	1,071	1,013	1,503	3,587

(*c*) NUMBERS OF CASES INVESTIGATED AND ASSISTED, 1924.

Branch.	Prisoners.					Dependents.		
	Total Investigations.	Work Found.	Monetary Assistance Given.	Other Assistance Given.	Assistance Refused.	Total Investigations.	Monetary Assistance Given.	Other Assistance Given.
Bloemfontein	22	—	11	8	4	14	13	1
Cape Town	1,548	17	163	418	—	147	54	93
Durban	359	15	74	60	14	41	26	13
Pietermaritzburg	260	52	99	63	8	20	9	8
Johannesburg	613	42	6	98	—	437	373	46
Kimberley	8	—	6	2	—	15	13	—
Port Elizabeth	40	3	13	31	1	40	13	31
Pretoria	1,281	35	95	136	12	219	79	140
TOTAL	4,131	164	467	816	39	933	580	332

8. **Friendly Societies.**—The subjoined table contains particulars, collected for the first time in 1921 under the *Statistics Act*, of Friendly Societies in the Union. The figures relate to all societies, lodges, clubs, and other associations established primarily for the purpose of granting financial assistance to members or their dependents in case of incapacitation, sickness, death, unemployment, or other causes; insurance companies are not included.

FRIENDLY SOCIETIES IN THE UNION, 1919–20 TO 1923–24.

(i) NUMBER OF SOCIETIES, BENEFIT MEMBERS, ETC.

Year.	Number of Societies.	Funds.			Benefit Members.	
		Invested.	Not Invested.	Total.	Admitted during Year.	At End of Year.
		£	£	£		
1919–20...	91	253,321	27,914	281,235	8,266	42,351
1920–21...	87	288,919	22,874	311,793	6,630	44,695
1921–22...	85	310,384	24,818	335,202	6,402	42,933
1922–23...	84	347,728	18,644	366,372	4,875	44,444
1923–24...	83	371,145	26,879	398,024	4,302	43,556

Year.	Deaths.		Sick Benefits.	
	Members.	Registered Wives of Members.	Recipients.	Period.
			Number.	Weeks.
1919–20.....	353	117	8,972	24,062
1920–21.....	414	102	9,967	14,378
1921–22.....	381	93	8,646	21,957
1922–23.....	377	106	8,450	19,424
1923–24.....	423	102	9,249	22,041

(ii) REVENUE AND EXPENDITURE.

Year.	Revenue.				
	Entrance Fees.	Members' Contributions.	Levies.	Other.	Total.
	£	£	£	£	£
1919–20.....	1,447	133,822	2,092	22,974	160,335
1920–21.....	1,349	121,619	11,169	39,041	173,178
1921–22.....	1,295	114,773	33,171	25,588	174,827
1922–23.....	1,796	127,512	19,062	25,961	174,331
1923–24.....	1,215	133,384	18,299	25,711	178,609

Year.	Expenditure.						
	Sick Pay.	Medical Attendance.	Amount Paid at Death of		Administration.	Other.	Total.
			Members.	Registered Wives of Members.			
	£	£	£	£	£	£	£
1919–20....	32,751	28,621	30,048	1,612	14,922	15,634	123,588
1920–21....	32,032	38,770	32,056	7,366	18,957	14,149	143,330
1921–22....	28,586	34,491	30,383	13,448	16,527	18,508	141,943
1922–23....	28,386	32,002	31,303	2,856	17,204	27,019	138,770
1923–24....	28,924	37,995	34,295	2,640	17,838	17,767	139,459

§ 3. Organization and Legislation in Promotion of Child Welfare.

1. **Child Welfare Organizations.**—(i) *Objects.*—The various agencies and organizations in the Union which are concerned with child welfare and of which the activities are co-ordinated in the central deliberative body known as the National Council for Child Welfare, have for their general objects :—

(*a*) The *prevention* of any form of cruelty to children, including efforts to deal with the following conditions—
Neglect; life in slums and over-crowding; destitution; sweating and over-work; disease; begging; crime; street trading; ignorance; prostitution; abandonment; unsuitable environment.

(*b*) The *protection* of children, involving such problems as pre-natal care, i.e. the best way to ensure the survival of healthy babies, by attention to the needs of the expectant mother; proper attention at the time of birth; by the provision of proper medical and nursing attendance where necessary; systematic attention during infancy through the agency of Infant Consultation bureaux, Babies' Welcomes and similar organizations; the care of children of school-going age, in school and out of it, including medical inspection of schools; after-care, i.e. the well-being of the adolescent boy and girl, and the elimination, wherever possible, of the blind-alley occupation and poor white problems; and the holding of mental clinics by specialists.

(ii) *History of Child Welfare Movement.*—Until the passing of the *Children's Protection Act* (No. 25 of 1913) the various laws in force in the Union with regard to the protection of children were found to be inadequate. The first effort of this kind of legislation was a Cape Colony law of 1879. A similar law was passed in Natal in 1896 and the Orange Free State in 1899. A *Children's Protection Act* was promulgated in Natal in 1901, and in 1907 the Cape Colony passed the *Infant Life Protection Act.* In 1909 the Transvaal passed a law, the main lines of which are embodied in Chapter II of the existing Union Act of 1913. The *Factories Act* of 1918 (paragraph 4) is concerned with an important aspect of the problem of child life protection. The Cape Provincial Ordinance of 1919, dealing with relief and charitable institutions, makes provision for the payment to registered societies and institutions dealing with children, and the *Union Public Health Act of* 1919 similarly authorizes the payment of grants to societies dealing with destitute children. An amendment to the *Children's Protection Act* was passed in 1921 and is proving most helpful in the interests of children. The *Adoption Act* (see paragraph 3) was passed in 1923, and promulgated on the 1st January, 1924. Quite a large number of applications are being made for the adoption of children (adopted in the past) to be legalized. An amendment to the *Prisons and Reformatories Act* (No. 46 of 1920), amongst other things, provides authority for the detention in certified hostels of juvenile offenders and others. In Johannesburg there is one hostel for girls and two for boys, and at Retreat, Cape Town, one for coloured boys.

The various enactments owed their origin to a general appreciation of the problems arising out of the high infantile mortality which prevailed in many parts of the Union. The Society for the Protection of Child Life founded in Cape Town in 1907 and the Children's Aid Society, founded in Johannesburg a year later, were formed principally with the object of coping with this question. Many similar societies have since sprung up in all parts of the Union, and the movement has spread to Southern Rhodesia.

The first Child Welfare Conference was held at Cape Town in March, 1917, followed by one in Johannesburg in May, 1918, a third being called in Durban in September, 1919. These conferences, attended by over 250 delegates from all over the Union, have done much to educate and inform public opinion generally and to stimulate Government, Provincial, and Municipal action. The fourth conference was held in Bloemfontein in September, 1920, and the fifth in Port Elizabeth in October, 1922. The sixth Child Welfare Conference was held at Cape Town in March, 1924, the principal subject under consideration being the question of preventive work, with special reference to mothers and infants.

(iii) *Child Welfare Societies.*—The following societies exist in the various Provinces :—

Cape (20).—The Society for the Protection of Child Life in Cape Town, East London, Stellenbosch, and Wynberg; the Child Welfare Society in Aliwal North, Beaufort West, Caledon, Graaff-Reinet, Grahamstown, Hermanus, Kimberley, King William's Town, Middelburg, Oudtshoorn, Port Elizabeth, Vryburg, Wellington, Kuruman, Queenstown, and Fort Beaufort.

Natal (5).—The Child Welfare Society in Durban, Greytown, Ladysmith, Pietermaritzburg, and Vryheid.

Orange Free State (4).—The Child Welfare Society in Bloemfontein, Heilbron, Springfontein, and Parys.

Transvaal (12).—The Children's Aid Society in Johannesburg, Bloemhof, Benoni, Boksburg, Germiston, and Krugersdorp; the Child Welfare Society in Potchefstroom, Pretoria, Springs, Brakpan, Klerksdorp, and Pietersburg.

All the above societies have as their main objects all measures necessary to prevent any form of cruelty, neglect, or ill-treatment of children. They especially aim at securing the adequate carrying out of all Acts of Parliament and Provincial Ordinances dealing with children. They seek to promote any legislation that may be considered necessary to improve the moral and physical condition of children; and to establish infant life bureaux, mothers' welcomes, homes for neglected and other children, and to provide or secure, when necessary, for infants and children, hospital accommodation which is not otherwise established.

Other organizations also concerned, though not so directly, with the welfare of children are the Board of Aid in Cape Town; the Rand Aid Association; the Juvenile Affairs Boards throughout the Union; the Children's Care and After-Care Committees, Johannesburg; the Committee for the Care of Mental Defectives in Cape Town; and societies such as the Women's Christian Temperance Union, the National Council of Women, and the various women suffrage societies, notably the National Service Fund in Johannesburg. Church organizations, such as the Salvation Army, do most valuable work in rescuing and succouring destitute children, and the various Christian and Jewish churches have their own societies for dealing with various aspects of the problem. Notable among these are the activities of the Dutch Reformed Church. In addition, orphanages and homes established by public and private enterprise have been opened, and hospitals and schools, in many cases, now have their guilds of helpers and boards of aid for keeping in touch with both mother and child.

Child Welfare Societies are entirely dependent for their working on donations and subscriptions from the public. In some cases municipal grants are given. In the Cape Province a certain number of societies are registered under a Provincial Ordinance which entitles them to a subsidy from the Provincial and Municipal Authorities. In the larger societies work is done by a paid staff, and in the smaller societies on a voluntary basis. Through the Public Health Department the payment of an annual grant of £1,000 for the Cape Town Mothercraft Training Centre, which includes a Dietetic Hospital for Infants, has been sanctioned.

(iv) *Activities of Child Welfare Organizations.*—(a) *Infant Consultation Bureaux.*—These have been started in various centres (six in Cape Town and suburbs), and in connexion therewith free dinners are provided daily for expectant and nursing mothers. Mothers and guardians are encouraged to bring the babies to the bureaux regularly to have them weighed. There is a doctor in attendance and lady health visitors. Medical advice is given and the proper kinds of food recommended. Simple remedies in the way of aperient and corrective medicines, tonics, ointments and liniments are provided, either free or for a small payment. The women are taught to cut out and sew simple garments, and are generally helped and advised. In most bureaux, milk tickets are given for varying periods, free or for payment, to ensure a supply of fresh milk delivered daily at the woman's own home. In Cape Town there is a milk fund, supported by private subscriptions of one shilling and upwards per month. The card indexing system is followed at the bureaux and a record kept of all children. These cards are filed for future reference, and kept for the Education Department for use where medical inspection of schools is in vogue. In Cape Town the bureaux are carried on at the expense of the Municipality, which provides the services of the medical superintendent and the lady health visitors, the Child Life Protection Society providing the helpers and voluntary workers. In other centres, such as East London, Grahamstown, Kimberley, and Port Elizabeth, bureaux are arranged on the same lines as in Cape Town, but no medical attendance is, so far, available. In Johannesburg a Babies' Welcome has been organized by the National Service Fund, with the help of the municipal lady health visitors.

(b) *Protected Infants.*—Under the *Children's Protection Act* any child under seven years of age, who is retained or received for the purpose of being nursed or maintained apart from its parents for a longer period than three days, is a *protected infant.* Within a municipal area, notice of such retaining or receiving must be given within forty-eight hours to the magistrate, or in outside areas within seven days to the field cornet of the ward. The magistrate notifies the police or the Child Welfare Society, where there is one, and the society sends one of its *authorized visitors,* men or women, to investigate the facts of the case. Reports are forwarded regularly to the magistrate for his information and any necessary action. In large centres like Cape Town and Johannesburg, the town and suburbs are divided into districts and apportioned to authorized visitors, all voluntary workers, who have satisfied the magistrate as to their fitness for the work. At the former centre the *protected infants* are now visited by the health visitors who have been appointed *authorized visitors* and who can pay more frequent visits than the voluntary visitors, as their regular work takes them into the districts almost daily. The homes of the children are visited at odd hours, on an average twice a month, and the general condition and environment reported on.

In addition, the larger Child Welfare Societies employ salaried inspectors to investigate cases of special difficulty and to carry out the instructions of the magistrate or the society. The Cape Town society employs four inspectors—three trained nurses and one other, and the Johannesburg society has one man. These inspectors investigate all complaints as to ill-treatment or neglect, warn the offenders, and, in the last resource, have them prosecuted under the Act. Cases of sickness which require treatment are sent to hospital or to the free dispensary for medicines, or, in the case of minor ailments, are dealt with at the bureau. Children are rescued from harmful and immoral surroundings, boarded out with approved foster-parents, or indentured to farmers and others, under supervision. Cases of backward or feeble-minded children are dealt with, and juvenile delinquents put on probation or sent to industrial schools.

(c) *Lady Health Visitors.* — Lady health visitors are municipal employees and their duty is, primarily, to teach the mothers and guardians the value of fresh air, cleanliness, and regular feeding, and to advise them on the proper care of their own bodies and those of the children. They report to the medical officer of health, who, in turn, reports to the Council.

(d) *District Nurses.*—In the *Cape Province,* district nurses, under the Cape Hospital Board, give free nursing attendance in necessitous cases. In the *Transvaal,* the district nurses, during their course of training, work among the needy poor in Johannesburg and district. At Johannesburg, a District Nurses' Association has been established, and is doing most useful work amongst the sick and poor of the city. In the country districts, all over the Union, the needs of the poorer people are supplied by the *King Edward VII. Order of Nurses.* All these nurses do valuable work in bringing cases, which would otherwise not be known, to the notice of the *Child Welfare Societies.*

(e) *Orphanages and Homes.*—There are a large number of orphanages and homes in the Union, most of them supported by private enterprise and in some cases subsidized by Government, where children of different ages and conditions are received. A list of such institutions in the Cape Peninsula and on the Witwatersrand was given in previous issues of this *Year Book.* Similar bodies in the *Cape Province* are the Woodville Orphanage at Grahamstown, the Children's Home at Kimberley; in *Natal* the Infant Home at Durban; in the *Orange Free State* St. Faith's Home and the Railway Orphanage at Bloemfontein, and a Weeshuis at Bethlehem and Ladybrand.

(f) *Industrial Schools.*—Government industrial schools under the Union Education Department have been established in the *Cape Province* at George, the Paarl, and King William's Town; in the *Transvaal* at Emmasdale (Heidelberg) and Standerton; and in the *Orange Free State* at Dewetsdorp and Tempe (Bloemfontein). Other industrial schools and certified institutions are in existence at Adelaide, Graaff-Reinet, Knysna, Kimberley, Potchefstroom, Riebeek West, Tulbagh, Uitenhage, Wellington, and Worcester.

(g) *Crèches and Day Nurseries.*—Crèches and day nurseries have been opened in populous centres, especially in the vicinity of factories, and found to be a boon to working mothers.

(h) *Children's Courts.*—What are virtually *children's courts* are in existence in Cape Town and Johannesburg, where, at specified hours in each week, one of the magistrates sits to hear cases of children under the Act. The inspector of the Child Welfare Society is present and furnishes the history of the child and its family and environment. In many cases of destitution and neglect the child is committed to the care of the society. In other cases the help of the society is requested in removing children from undesirable surroundings or having them sent to homes under escort.

(i) *Feeble-Minded.*—At Cape Town and Johannesburg the local Mental Hygiene Societies hold clinics at regular intervals, and many certified cases are sent to the Alexandra Training Institution and to Potchefstroom. There are two small homes in existence for the feeble-minded, one in the Cape of Good Hope at Retreat, and the other in the Orange Free State. Three homes (at Irene in the Transvaal and at Leliebloem and Claremont in the Cape of Good Hope) have been certified to take in feeble-minded girls. The Alexandra Institution (for feeble-minded) at Maitland, Cape Province, has accommodation for over one hundred children, and a school has been opened there under the control of the Commissioner for Mental Hygiene.

At the Third Annual Child Welfare Conference held in Durban in 1919, schemes were drawn up for the formation of four Provincial Mental Hygiene Societies and one National Council for Mental Hygiene. The latter has now been formed.

At the Fifth Conference held in Port Elizabeth in October, 1922, the following resolutions were adopted :—

" That this conference is of the opinion that additional psychiatrists are required in order to ascertain the presence of backward and mentally defective children in the schools, and to advise as to their education and treatment. That an expansion of the method adopted in Natal, viz., obtaining the services of the psychiatrist from adjacent mental hospitals, be arranged to cover other Provinces."

" That in the opinion of the National Council for the Union the authorities should be held responsible for the provision of the satisfactory education, training, and treatment of mentally backward children, and that the Ministry of the Interior be held responsible for such children as soon as they are certified defective under the Mental Disorders Act."

(j) *Medical Inspection of Schools.*—In Natal and in the Transvaal and, in a lesser degree, in the Cape of Good Hope, medical inspection of schools has been instituted. In Johannesburg there are school clinics and school nurses.

(k) *Maintenance Orders.*—Under the provisions of the Act amending the *Children's Protection Act*, maintenance orders can be secured for children, and they have proved most beneficial, especially in those cases of widowed mothers where it is desirable to keep mother and children together. In districts where Child Welfare Societies exist, these orders are paid through the Society, and the families are supervised.

(l) *Trust Support.*—Especially in the larger centres the societies act as intermediaries for the payment of military or other pensions for widows and orphaned children, and in private cases where maintenance orders have been made through the medium of the courts or otherwise.

(m) *Affiliation Orders.*—Some of the local societies have specialized in the procuring of affiliation orders and their collection for the women and children under their care. In Cape Town two receiving officers have been appointed at the magistrate's office, to whom these orders are paid, and the receipts run into £800 to £900 per month.

(n) *Dental Clinics.*—Many of the societies in the Cape Province are arranging for free dental treatment for children.

(o) *Play Centres.*—A recent development in Cape Town is the establishment of play centres at schools in the poorer districts of the city, where organized games and occupations are supervised by voluntary workers.

(p) *Fresh-Air Camps.*—Parties of poor children from the overcrowded areas of Cape Town are housed at the seaside during the summer months. Public support has been generously accorded to this activity.

(q) *Future Development.*—The organizations have in view the pressing need for the establishment of children's hospitals and nursery schools, especially in the larger centres of population. The future work of the various societies forms the subject of discussion at the Child Welfare Conferences.

Among the resolutions passed at the Fourth Child Welfare Conference held at Bloemfontein in September, 1920, was one for the federation of all Child Welfare Societies in the Union, in order to secure better co-operation in the work. This was accomplished as a result of the Sixth Conference held at Cape Town (March, 1924), when a national organizing secretary was appointed and a National Council for Child Welfare was established. All Child Welfare Societies have become affiliated to the National Council Union (as well as other bodies working in the interests of Child Welfare). There are eighty-seven members on the Council, which meets at least once a year. The Union Department of Education contributes £250 per annum towards the general expenses of the Council.

2. **Children's Protection Act.***—This Act (No. 25 of 1913), which is based largely on the provisions of the United Kingdom *Children's Act* of 1908, is designed to consolidate and amend existing laws so as to provide for the better protection of children under the age of sixteen years. The administration of the law is vested in the Union Department of Education, since September, 1917. A summary of the provisions of this enactment and of the amending Act (No. 26 of 1921) will be found in the sixth and previous issues of this *Year Book*.

3. **Adoption of Children Act.**—This Act (No. 25 of 1923) came into force on 1st January, 1924, and its administration has been entrusted to the Minister of Education. Application for an order of adoption must be made to the magistrate of the district in which the child to be adopted resides. The parents must give consent to the adoption and the child, if over the age of ten, must also give consent. If the child is deserted by the parents a guardian can be appointed by the Minister to give consent. All orders of adoption are registered in the office of the Registrar of Adopted Children, where all original papers dealing with the adoption are filed for record.

* Amended by Act No. 26 of 1921.

4. **Other Legislation:**—The provisions of the *Factories Act*, No. 28 of 1918, protect children employed in factories in a variety of ways. No child under 12 years of age may be employed in any factory; children under 14 years of age only under licence of a factory inspector; and children under 16 years of age only when certified physically fit for work. Hours and conditions of employment are also regulated.

The *Juveniles Act*, 1921, which is associated with the work of various Juvenile Affairs Boards in the Union, is administered by the Department of Labour, and provides for the "after-care" of children who have reached the school-leaving stage. Other legislation which has a bearing on the conditions of juvenile labour is the *Apprenticeship Act* of 1922 and the *Regulation of Wages, Apprentices and Improvers Act* of 1918 (see Chapter V).

§ 4. Liquor Laws.

1. **General.**—The liquor laws of the Union, in so far as they affect the European population, are based on English law and custom. It will be observed from the tables in the concluding paragraph that on the average there are in the Union twelve retail liquor licences and three bottle store licences in existence for every ten thousand of the European population.

The laws governing the supply of intoxicating liquor to coloured persons are framed in each Province to suit the conditions peculiar to each. These conditions vary so considerably and are based upon such divergent practice that there are formidable obstacles to the construction of a uniform law on this subject for the Union.

In the *Cape Province* for many years that portion of the coloured population which is brought into closest contact with Europeans has been accustomed to consume the wine and spirits manufactured by wine farmers and others. Until the product of the vine was brought up to the present standard, which enables it to compare favourably with similar products in Europe, by far the larger portion of the wine and brandy produced was consumed by the coloured population. At the present day in certain parts of the Province the practice still exists of issuing a ration of wine or spirits in part payment of wages due. Every registered Parliamentary voter is entitled to purchase intoxicating liquors without restriction. This provision does not, however, apply to the Transkeian Territories, which include the areas of East Griqualand, Tembuland, Pondoland, and the Transkei. Into these areas no liquor can be imported except under a permit from the magistrate of a district. No liquor can in these areas be supplied to a native except under permit.

In *Natal* there is total prohibition in the case of the coloured population, but licences are granted by the Provincial authorities to brew and sell kaffir-beer. There are forty-one such licences in force.

In the *Transvaal* licences to manufacture and sell kaffir-beer are granted by the Governor-General to large employers of native labour. Natives living in rural areas distant twelve miles from a town, a mine, or public digging are allowed to brew beer for their own consumption

In the *Orange Free State* a considerable revenue accrues through the issue of licences to hold beer gatherings. In arranging beer gatherings natives first obtain permission from the landowner and also secure the consent of the magistrate of the district. The issue of a permit is notified to the police. Little restriction is placed upon the issue of such licences, as the police make a point of attending such gatherings and making an inspection of passes, tax receipts, etc.

In the industrial areas of the Transvaal there is in existence a considerable illicit liquor traffic. In 1923, 429 Europeans and 672 non-Europeans were committed to prison under sentence for illicit sale of liquor to non-Europeans in the Union, and of these, 292 Europeans and 440 non-Europeans were sentenced in the Transvaal, in spite of the fact that in this Province the minimum sentence is six months' imprisonment with hard labour for a first offence, and for repeated offences the penalty may range up to four years' imprisonment. It is a recognized fact that large numbers of residents in the Transvaal trade illicitly in liquor as a means of livelihood, and the problem of dealing with the question has provided almost insuperable difficulties. A proposal has been made in Parliament to facilitate the sale to natives in the Transvaal of light Cape wines, in the hope that by this means the illicit traffic evil may be abated. The sale of kaffir-beer has also been urged as a comparatively innocuous liquor, rarely containing more than 3 per cent. of alcohol. This beer forms the natural beverage of the Bantu race, and is prepared from kaffir-corn, a species of millet.

The following table gives figures of liquor and bottle store licences issued in the various Provinces of the Union over a series of years. Particulars of convictions for drunkenness are also included; details as to other offences under the liquor laws are given in Chapter IX.

LIQUOR TRAFFIC, 1915 TO 1924.

Year.	Retail Liquor Licences.	*Europeans over 15 years per Licence.	Bottle Stores.	*Europeans over 15 years per Licence.	Convictions: Drunkenness. ‡			
					European.	Per 1,000 of Population over 15 Years.	Non-European.	Per 1,000 of Population over 15 Years.
Cape of Good Hope.								
1915...	1,050	624	201	3,260	1,543	5·03	10,039	8·03
1916...	973	680	207	3,198	1,272	3·43	9,489	7·50
1917...	962	695	198	3,378	1,374	3·67	10,029	7·84
1918...	942	717	196	3,447	1,214	3·21	9,792	7·57
1919...	909	739	191	3,518	1,073	2·80	8,236	6·58
1920...	971	699	201	3,376	1,063	2·75	6,482	5·12
1921...	938	731	200	3,427	977	2·50	6,047	4·72
1922...	952	731	201	3,463	1,253	3·15	6,458	4·98
1923...	945	744	197	3,569	1,564	3.89	8,207	6.26
1924...	941	755	196	3,633	1,646	4·03	10,159	7·66
Natal.								
1915...	†	—	†	—	287	4·19	992	1·40
1916...	†	—	†	—	350	4·94	1,073	1·48
1917...	†	—	†	—	286	3·91	971	1·32
1918...	†	—	†	—	239	3·16	900	1·20
1919...	†	—	†	—	258	3·31	741	0·99
1920...	†	—	†	—	348	4·34	693	0·91
1921...	247	334	47	1,755	347	4·21	712	0·92
1922...	356	240	76	1,123	685	8·03	1,915	2·42
1923...	383	229	79	1,110	895	10·20	2,365	2·94
1924...	392	231	77	1,175	910	10·06	2,596	3·18
Transvaal.								
1915...	686	415	203	1,404	1,246	4·37	5,882	7·04
1916...	721	406	193	1,517	1,188	4·06	5,999	7·02
1917...	726	414	183	1,643	1,269	4·22	5,491	6·29
1918...	736	419	188	1,641	1,186	3·84	5,656	6·35
1919...	705	449	185	1,710	1,298	4·10	7,657	8·59
1920...	754	430	193	1,680	1,139	3·51	4,688	5·15
1921...	644	516	298	1,596	1,058	3·19	4,797	5·17
1922...	794	423	212	1,583	1,682	5·01	5,255	5·54
1923...	768	445	216	1,584	2,071	6·05	7,322	7·58
1924...	730	479	224	1,564	2,002	5·71	7,983	8·11
Orange Free State.								
1915...	121	892	55	1,963	207	1·92	667	2·83
1916...	125	869	53	2,050	188	1·73	552	2·29
1917...	123	889	55	1,988	99	0·91	425	1·72
1918...	120	917	55	2,001	148	1·35	371	1·47
1919...	125	886	58	1,909	154	1·39	445	1·76
1920...	124	898	57	1,954	173	1·55	419	1·62
1921...	107	1,048	53	2,115	102	0·91	359	1·36
1922...	124	928	53	2,172	143	1·24	288	1·06
1923...	121	960	51	2,278	162	1·39	366	1·32
1924...	119	989	48	2,454	179	1·51	478	1·69
Union.								
1915...	—	—	—	—	3,583	4·33	17,580	5·80
1916...	—	—	—	—	2,998	3·56	17,113	5·55
1917...	—	—	—	—	3,028	3·53	16,916	5·40
1918...	—	—	—	—	2,787	3·19	16,719	5·25
1919...	—	—	—	—	2,783	3·05	17,081	5·43
1920...	—	—	—	—	2,723	3·02	12,282	3·84
1921...	1,936	626	508	2,386	2,484	2·71	11,915	3·67
1922...	2,226	554	542	2,273	3,763	4·03	13,916	4·21
1923...	2,217	563	543	2,300	4,692	4·95	18,260	5·44
1924...	2,182	582	545	2,331	4,737	4·90	21,216	6·22

* Includes coloured persons in the Cape Province only. † Not available.
‡ Including, for years 1922, 1923, and 1924 persons who estreated bail.

2. **Temperance Movement.**—A note on the development and further activities of the temperance movement in South Africa will be found in previous issues of the *Year Book*. Recent efforts towards legislative reform in reference to the liquor traffic have been organized mainly by the South African Temperance Alliance, an association which aims at co-ordinating the efforts of all the churches and of all the various temperance organizations in South Africa, particularly with a view to legislation.

A Local Option Bill was introduced in 1913 by the late Senator Schreiner, and eventually carried through the Senate under his leadership in 1917, but the same Bill was thrown out of the Assembly by 57 votes against 26. War conditions and other difficulties prevented the resumption of the local option movement in Parliament until 1922, when Dr. Malan's Liquor Option Bill was introduced, coming eventually to a vote in March, 1923, and being defeated by 56 votes against 41. In 1924 the Local Option Bill was reintroduced by Mr. Leslie Blackwell, but it was defeated on the second reading by 53 votes against 51, and in the present newly elected Parliament was again defeated in 1925 by 56 votes against 47. As an outcome of the visit of Mr. W. E. Johnson, who toured South Africa in 1923 on the invitation of the Temperance Alliance and lectured on the results of prohibition in America, a Local Option Congress, convened by the leaders of the temperance movement in the Dutch Reformed Churches in co-operation with the South African Temperance Alliance, was held at Cradock in December, 1923.

§ 5. Divorces.

1. **Return of Divorces.**—Particulars are given in tables (i) and (ii) of the number of divorces, judicial separations, and decrees of nullity of marriage in respect of Europeans over a number of years, and in tables (iii), (iv), (v), (vi) and (vii), more detailed information regarding divorces petitioned for during a series of years.

(i) DECREES OF DIVORCE, JUDICIAL SEPARATION, AND NULLITY OF MARRIAGE GRANTED (EUROPEANS ONLY), FROM 1914.

Year.	Divorces.	Judicial Separation.	Decree of Nullity.	Total.	Cape.	Natal.	Transvaal.	Orange Free State.
1914..	203	8	—	211	103	4	70	34
1915..	133	15	1	149	69	16	53	11
1916..	510	22	4	536	109	37	374	16
1917..	468	21	5	494	107	58	298	31
1918..	479	3	10	492	131	40	299	22
1919..	672	5	33	710	165	53	452	40
1920..	784	20	1	805	198	89	493	25
1921..	787	26	3	816	219	90	475	32
1922..	639	21	1	661	154	104	360	43
1923..	661	25	5	691	193	73	393	32
1924..	790	26	3	819	220	81	456	62

(ii) PETITIONS FOR DIVORCE, JUDICIAL SEPARATION, AND NULLITY OF MARRIAGE 1924, CLASSIFIED ACCORDING TO SEX OF PETITIONER (PROVINCES).

Province.	Divorce.		Judicial Separation.		Nullity.		Total.		Grand Total.
	Husband.	Wife.	Husband.	Wife.	Husband.	Wife.	Husband.	Wife.	
Cape.....	132	118	2	9	1	1	135	128	263
Natal.....	36	44	—	2	—	—	36	46	82
Transvaal.....	202	259	1	10	2	2	205	271	476
Orange Free State.....	34	29	—	4	—	—	34	33	67
UNION.....	404	450	3	25	3	3	410	478	888

(iii) GROUNDS ON WHICH DIVORCES, ETC., WERE SOUGHT, 1924 (UNION).

Heading.	European.		Native.		Asiatic.		Other Non-European.		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
Desertion	296	379	7	6	3	—	11	7	317	392	709
Adultery	66	52	9	5	1	—	11	5	87	62	149
Incompatibility of Temper	—	2	—	—	—	—	—	—	—	2	2
Bigamous Marriage	—	—	—	—	—	—	—	—	—	—	—
Other Grounds	4	20	2	—	—	1	—	1	6	22	28
TOTAL	366	453	18	11	4	1	22	13	410	478	888

(iv) DECREES OF DIVORCE, JUDICIAL SEPARATION, AND NULLITY OF MARRIAGE 1924, CLASSIFIED ACCORDING TO RACE AND SEX OF PETITIONER (UNION).

Heading.	European.		Native.		Asiatic.		Other Non-European.		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female	Male.	Female.	Male.	Female.	Total.
Divorce	362	428	16	10	4	—	22	12	404	450	854
Judicial separation	3	23	—	1	—	—	—	1	3	25	28
Nullity	1	2	2	—	—	1	—	—	3	3	6
TOTAL	366	453	18	11	4	1	22	13	410	478	888

(v) DIVORCE CASES CLASSIFIED AS TO NUMBER OF CHILDREN OF PETITIONERS, FROM 1918.

Year.	Number of Children.					Number of Petitioners.
	None.	One.	Two.	Three.	Four or More.	
1918	198	136	92	63	64	553
1919	283	178	141	83	94	779
1920	288	205	165	94	81	892*
1921	340	233	152	87	81	908†
1922	240	182	109	72	61	703‡
1923	302	203	113	66	61	745
1924	359	215	155	74	85	888

* Details not available in 59 cases. † Details not available in 15 cases.
‡ Details not available in 39 cases.

(vi) DURATION OF MARRIAGE IN DIVORCE CASES, FROM 1918.

Year.	Duration of Marriage.					Number of Marriages.
	Under 5 Years.	5–9 Years.	10–14 Years.	15–19 Years.	20 Years and Over.	
1918	114	153	139	73	74	553
1919	154	250	169	102	104	779
1920	164	261	212	133	122	892
1921	222	233	164	148	141	908
1922	160	191	157	107	88	703
1923	178	219	171	83	94	745
1924	204	261	192	93	138	888

(vii) **AGES OF PETITIONERS IN DIVORCE CASES, FROM 1918.**

Year.	Ages of Petitioners.						Number of Petitioners.
	Under 21 Years.	21–29 Years.	30–39 Years.	40–49 Years.	50 Years and Over.	Unspecified.	
1918.....	14	100	217	94	128	—	553
1919.....	3	190	282	132	49	123	779
1920.....	4	209	311	177	52	139	892
1921.....	16	220	252	169	75	176	908
1922.....	6	148	216	135	38	160	703
1923.....	10	189	241	142	51	112	745
1924.....	14	226	308	175	61	104	888

§ 6. Miscellaneous.

1. **Natural and Historical Monuments.**—Act No. 6 of 1923 makes provision for the preservation of the natural and historical monuments of the Union and of objects of aesthetic, historical, or scientific interest. The Act embraces within its scope areas of land having distinctive or beautiful scenery, and more specifically, waterfalls, caves, avenues of trees, old trees, old buildings, and Bushman paintings. Provision is made for the establishment of a Commission of not less than seven members to carry out the objects of the Act. The funds of the Commission are derived from donations, fees, and annual subscriptions, and its duties include the framing of a register of monuments which ought to be preserved. The Commission may take steps for the preservation of such monuments, and may purchase any monument if it has the funds for the purpose and can secure the consent of the owner. It may also act as trustee of any monument and accept, as trustee for the Union, any monument donated or bequeathed to the Union. Penalties may be imposed for the disfigurement or destruction of any monument.

Under Act No. 22 of 1911, Bushman-relics may not be removed from the Union without the written authority of the Minister of the Interior.

2. **Prevention of Cruelty to Animals.**—The law relating to the prevention of cruelty to animals is contained in Act No. 8 of 1914, which consolidated various Provincial laws in force at the time. Persons guilty of certain offences defined by the Act as amounting to cruelty to animals are liable to imprisonment (with or without the option of a fine not exceeding £25) for a period not more than three months, with or without hard labour. Animals which have been subject to cruelty may be destroyed or otherwise disposed of as the court may direct. A society for the prevention of cruelty to animals may be authorized to institute prosecutions under the Act, and officers of such a society may be granted police powers under the Act within particular areas.

3. **Public Holidays.**—The following are the statutory public holidays of the Union as prescribed in Act No. 3 of 1910 :—

New Year's Day.
Good Friday.
Easter Monday.
Ascension Day.
Victoria Day (24th May).
Union Day (31st May).
King's Birthday (first Monday in August).
First Monday in October.
Dingaan's Day (16th December).
Christmas Day.
Boxing Day (26th December).

When any of these days fall on a Sunday, the following Monday is observed as a public holiday. When Boxing Day falls on a Monday the following Tuesday is regarded as a holiday. Sundays and the above-named days are deemed to be non-business days for bills of exchange and promissory notes.

CHAPTER IX.

ADMINISTRATION OF JUSTICE.

§ 1. Criminal Jurisdiction—Lower Courts.

1. **Magistrates' Courts.**—The Union *Magistrates' Courts Act* (No. 32 of 1917) lays down the following limits of punishments which may be imposed by a magistrate's court in any part of the Union :—

Ordinary summary jurisdiction :—
Fine not exceeding £50.
Imprisonment with or without hard labour not exceeding six months.
Whipping not exceeding fifteen strokes.

Increased jurisdiction by reason of remittal :—
Twice the above limits in case of fine or imprisonment.

The present *Criminal Procedure and Evidence Act* (No. 31 of 1917), which came into operation on the 1st January, 1918, and which is the main enactment in connexion with the administration of criminal justice, provides that boys under *sixteen* may receive a moderate correction by whipping in lieu of other punishments. This same Act provides also for other forms of punishment, such as in the case of adults detention in farm colonies or inebriate reformatories, and in the case of juveniles or juvenile adults, detention in a juvenile or juvenile adult reformatory, apprenticeship, binding over in recognizances, postponement or suspension of sentences, orders for compensation, caution, and reprimand.

Mention may also be made of the fact that in Natal, previous to the constitution of Union, "occasional courts or branch courts," and in the Cape, Transvaal, and Orange Free State "periodical courts" were held in each district at places some distance away from the seat of magistracy, for the convenience of the public. These courts possessed the same jurisdiction in all respects as those held at the seat of magistracy. This practice is recognized under the new Act (No. 32 of 1917), and all such branch courts are known as "periodical courts," and possess the same criminal jurisdiction as those courts which are held at the seat of magistracy.

The *Magistrates' Courts Act*, 1917, was applied to the mandated territory of South West Africa by Proclamation No. 52 of 1921, issued by the Administrator of that territory under the powers delegated to him under Act No. 41 of 1919 of the Union Parliament.

2. **Courts of Special Justice of the Peace.**—The Union Act, No. 2 of 1918, consolidates the law relating to the appointment and jurisdiction of special justices of the peace.

In the first place jurisdiction is given by section 3 and the First Schedule to the Act over all statutory offences for which the *maximum* penalty does not exceed a £25 fine, or three months' imprisonment, or both. Such offences are usually of a petty nature. Also, this section and Schedule in effect re-enact, in a briefer form, much of the existing legislation upon the subject. In the Orange Free State alone jurisdiction is given in respect of more than twenty statutes or fractions of statutes which are at present separately enumerated in the body or schedule of several Acts extending the jurisdiction of special justices of the peace [First Schedule (1) of Act].

Secondly, jurisdiction is given in respect of those common law offences such as petty thefts and assaults, which were originally subjects of trial by a special justice of the peace. This presents no difficulty, as the jurisdiction in this respect is practically the same in all the three Provinces which have special justices of the peace [First Schedule (2) (3) (4)].

Thirdly, jurisdiction is given in certain classes of offence which may be roughly classified as rural, e.g. offences in respect of pounds, preservation of game, etc., upon the assumption that the function of a special justice of the peace is mainly to provide for the comparatively simple wants of the countryside. A complete list of these classes of offence

is contained in sub-division (8) of the First Schedule to the Bill. Jurisdiction is also given in respect of contraventions of by-laws [First Schedule (6)].

Fourthly, jurisdiction is given in respect of contraventions of regulations made under the *Native Labour Regulations Act*, No. 15 of 1911, section 23 (1), paragraphs (*i*), (*j*) and (*k*), First Schedule (7).

Finally, in master and servant cases, special justices of the peace are given without restriction the full jurisdiction of a magistrate. This does not increase the punishment which a special justice of the peace may impose, except in the single case of forging a false certificate of character. There are many provisions in the *Master and Servant Acts* as to matters other than the imposition of fine and imprisonment, e.g. the making of orders for the payment of wages (section 3).

Besides this increase in master and servant jurisdiction, the plan adopted has resulted in an incidental increase in some other matters. For example, in the Transvaal special justices of the peace have jurisdiction over all contraventions of Act No. 23 of 1907 (Registration and Control of Dogs), except contraventions of section 7 (3) of that Act, which deals with forgery of dog badges and provides a penalty of two years' imprisonment. The language employed in the Act covers the whole of this statute, including section 7 (3) of that Act. This extension is, however, more apparent than real, since by the proviso to section 3 (1) of the Act a special justice of the peace cannot inflict a greater punishment than a fine of £10 or one month's imprisonment. Any risk that a serious offender might escape with an inadequate punishment by being prosecuted before a special justice of the peace for a serious offence is obviated by section 5 of the Act, which empowers the special justice of the peace, if he discovers the offence to be beyond his jurisdiction, or, though within his jurisdiction, of such a nature as not to be suitable for trial by him, to transmit the proceedings to the magistrate to be dealt with according to law, i.e. to be commenced afresh under the *Criminal Procedure Act*.

By section 3 (2) of the Act, special justices of the peace have been given the same jurisdiction as has been given to magistrates to sentence to whipping male offenders under sixteen years of age.

The Act gives a special justice of the peace jurisdiction to make an order for costs against an offender or complainant, in addition to the fine or imprisonment imposed in the case of an offender (see also s. 23 of the *Criminal Procedure and Evidence Act*, 1917, as to private prosecutions). The Act also authorizes a special justice of the peace to order an offender to make compensation and restitution (see also Ch. XIX of *Criminal Procedure and Evidence Act*, 1917).

Section 3 (1) of the Act is so drawn as to prevent any special jurisdiction being exercised under existing laws in the case of special justice of the peace courts.

As regards the appointment of special justices of the peace and therefore the circumstances which give rise to the constitution of such courts, the Act (s. 1) sets the limit at twenty miles from the seat of magistracy of a district or sub-district.

Magistrates' courts possess either appellate or review jurisdiction in respect of the criminal proceedings held before courts of special justice of the peace. Under the new *Special Justice of the Peace Act*, records of all criminal proceedings before a special justice of the peace will be transmitted to the local magistrate for review. He will possess on such review like powers to those possessed by a provincial division of the Supreme Court in the review of a decision of a magistrates' court. The Act also provides for an appeal to the magistrate's court against a conviction or sentence by a special justice of the peace, with a further appeal to the provincial or local division of the Supreme Court having jurisdiction.

3. **Courts of Native Commissioners and Sub-Commissioners.**—The courts of native commissioners and sub-commissioners exist only in the Transvaal. They were constituted by Ordinance No. 3 of 1902, immediately after the termination of the South African war. No limitation is placed upon the number of such officials who may be appointed, but in practice, where the appointment of a native commissioner is considered advisable in any district, the magistrate acts as such, while sub-commissioners are officers of the Department of Native Affairs, and only exist in districts where it is deemed advisable for the magistrate to act as native commissioner.

The jurisdiction of a native commissioner and of a sub-commissioner is as follows :—

(i) The jurisdiction conferred by Law No. 4 of 1885 in connexion with civil disputes in which white persons are involved with tribal natives (Ordinance No. 3 of 1902, s. 2). Further reference is made to this under the heading "Civil Jurisdiction"—§ 3 (3) of this Chapter.

(ii) The summary jurisdiction (but in respect only of offences committed by natives within the commissioner's area of jurisdiction) which a magistrate's court possesses in respect of any offence under the Magistrates' Courts Law and the convictions and sentences of a court of native commissioner or sub-commissioner are subject to the same law as to review and appeal as the law governing reviews of and appeals from a decision of a magistrate's court in a criminal case.

(iii) As indicated above, the native commissioner and sub-commissioner is *ex officio* a resident justice of the peace within the district for which he is appointed, exclusive of an area of twenty miles from the seat of magistracy. As such, therefore, he has the criminal jurisdiction of a resident justice of the peace.

§ 2. Criminal Jurisdiction—Superior Courts.

1. **Divisions of the Supreme Court.**—Part VI of the *South Africa Act* (s. 95 to s. 112) left the superior courts of the Union in precisely the same position as regards criminal jurisdiction as before the establishment of the Union. All that was changed was the nomenclature. A Supreme Court of South Africa was constituted in name, and an Appellate Division thereof was created (s. 96); but to that division appeal lies on criminal matters from a judgment of a provincial or local division only after special leave to appeal to it has been given by the Appellate Division (s. 103 and s. 105). The three Supreme Courts of the Cape of Good Hope, Natal, and the Transvaal became provincial divisions of the new Supreme Court of South Africa; the High Court of the Orange River Colony became the Provincial Division of the Orange Free State; the Eastern Districts Court of the Cape became the Eastern Districts Local Division; the High Court of Griqualand became the Griqualand West Local Division; and the Witwatersrand High Court became the Witwatersrand Local Division. Circuit Courts in every Province also became local divisions of the Union Supreme Court.

2. **Jurisdiction.**—(i) *Provincial and Local Divisions.*—The several Supreme Courts, High Courts, and Circuit Courts have continued after the establishment of the Union to possess as provincial or local divisions (as the case may be) the same criminal jurisdiction which they had previously possessed. In other words, presided over by a judge, and with a jury to determine questions of fact, such a superior court had before the establishment of the Union, and has now, practically unlimited criminal jurisdiction within the area for which it was constituted. This jurisdiction, except in very special cases, comes into operation on presentation to the court of an indictment by the Attorney-General of the Province, or in the case of the Eastern Districts Court, an indictment by the Solicitor-General; and such indictment is presented after the accused has been committed for trial by a magistrate holding in a semi-judicial and semi-administrative capacity an inquiry called a preparatory examination.

The existing jurisdiction of these superior courts has been indirectly confirmed by the Union Parliament in section 4 of the *Criminal Procedure and Evidence Act*, 1917, which lays down that the jurisdiction of the several superior courts in respect of the trial of persons accused of any offence, is prescribed in the laws severally relating to the constitution and jurisdiction of those courts. The same Act recognizes two other classes of superior court for the trial of criminal cases, (*a*) the Native High Court of Natal as a permanent court, and (*b*) a special criminal court constituted by the Government *ad hoc* on the request of the Attorney-General for the trial of certain classes of cases where there is ground to believe that the ends of justice may be defeated by a trial before a jury.

The statutes conferring criminal jurisdiction on the provincial and local divisions described above are as follows:—*Cape:* The Charter of Justice, sections 30 and 39. Ordinance No. 40 of 1828, sections 1, 2, and 3. Act No. 35 of 1896, section 13 as to the Eastern Districts. Act No. 39 of 1877, section 10 as to the Griqualand Local Division. *Natal:* Act No. 39 of 1896, sections 6, 7, and 8. *Transvaal:* Ordinance No. 10 of 1903, sections 1 and 6. *Orange Free State:* Ordinance No. 4 of 1902, sections 3 and 21.

(ii) *Native High Court, Natal.*—The Native High Court of Natal, as at present constituted, derives its jurisdiction from Act No. 49 of 1898 of Natal (s. 29 to s. 31), as amended by Act No. 47 of 1901 (s. 5 and s. 6), and as further amended by Act No. 30 of 1910 (Natal, s. 1 to s. 2). The court consists of a judge-president and three other judges, and tries serious criminal cases where the accused are natives. By the amending legislation its jurisdiction in such cases was extended so as to exclude that of other courts, and to include jurisdiction in capital cases also against natives.

(iii) *Circuit Courts.*—These Courts were established by various pre-Union laws and in the Cape, Transvaal, and Orange Free State are held at such places and on such days as the Governor-General may approve on the recommendation of the Judge-Presidents and Judges of the Provincial Divisions of the Supreme Court concerned. One or more Magisterial Districts may form a Circuit District, and the grouping of Magisterial Districts into Circuit Districts is subject to alteration from time to time. Descriptions of Circuit Districts and the places and days for holding of Circuit Courts are published in the *Government Gazette* from time to time.

The *Cape Province* is divided into two Circuits (those for the Western and Eastern Districts). Each is held twice annually, commencing in March and September.

The *Transvaal* is divided into two Circuits (those for the Western and Eastern Districts). Each is held twice annually. The Western Circuits usually commence in May and October and the Eastern Circuits in March and August.

Two Circuits are held annually for the various Districts in the *Orange Free State.* These Circuits usually commence in March and September. In *Natal* the law provides for the holding of Circuits when necessary at centres prescribed by the Supreme Court. Circuit Court is held regularly at Durban, but no Circuits have been held elsewhere since 1914.

Full Court and single Judge Circuits for the trial of all classes of cases against natives are held at regular intervals by the *Native High Court* during each year at towns and on days prescribed by Rules of Court.

(iv) *Special Criminal Courts.*—The special criminal court originated in a provision of Act No. 27 of 1914, whereby in the circumstances above described charges of treason, sedition, public violence, and certain offences arising out of industrial disputes, might be dealt with by two or three judges without the aid of a jury. That provision was utilized in 1915 for the trial of numerous charges of treason and sedition arising out of the rebellion of 1914, as well as several charges of public violence arising out of the anti-German riots. In re-enacting the provision in Chapter XII of the *Criminal Procedure and Evidence Act*, 1917, the legislature added to these classes of offences contraventions of laws for the prevention of illicit dealing in and possession of precious metals, precious stones, and of the supply of intoxicating liquor to natives or coloured persons. This special court was again utilized in 1922 and 1923 for the trial of numerous cases of treason and sedition arising out of the disturbances on the Witwatersrand in March of 1922. Further, when the Attorney-General of the Transvaal certified that acts alleged to constitute the offence of murder, assault with intent to commit murder, assault with intent to do grievous bodily harm, arson, or of malicious injury to property were committed in connexion with those disturbances or in connexion with the industrial dispute from which the disturbances arose, and in a district then placed under martial law, this special court was, by Act No. 6 of 1922, (s. 4) given jurisdiction to try the charges of any such offence.

3. **Jurisdiction under Act No. 31 of 1917.**—Under the *Criminal Procedure and Evidence Act*, No. 31 of 1917, the superior courts continue the practice of trying indictments presented by the Attorney-General, or (in the Eastern Districts of the Cape) by the Solicitor-General. A superior court also tries an indictment presented—but presented only rarely—by one of that limited class of persons who are empowered to institute private prosecutions after the Attorney-General (or Solicitor-General) has certified that he declines to prosecute. The indictments are presented after consideration of preparatory examinations and the committal of the accused for trial by a magistrate. Except in the case of the Native High Court and the Special Criminal Court in the circumstances above described—and with one further exception (see below)—the trial is conducted before a jury of nine men, of whom seven at least must be unanimous as to the verdict returned. This limitation on absolute unanimity is a modification of the law in the Cape and the Orange Free State. After a verdict, the court is limited as to the punishment by the provisions of the common law as to the offence, or in case of a statutory offence, by the terms of the statute creating the offence. But subject to the common law or the statute, the court *must* impose the death sentence on convictions for murder except where the accused is a woman convicted of the murder of her newly-born child or is a person under sixteen years of age, and it *may* impose the death sentence on a conviction for treason or for rape. In other cases the court may, subject to the common law or the particular statute concerned, impose fine or imprisonment or whipping or all such punishments, and may also impose those special classes of detention and punishment which are described above in connexion with magistrates' courts. On a third conviction for certain scheduled offences, a superior court may declare the offender to be an habitual criminal, and impose upon him an indeterminate sentence.

The other exception to trial before a superior court without a jury is contained in section 216 of the *Criminal Procedure and Evidence Act*, whereby a judge must on notice and application by the accused try him without a jury, and may in his discretion call to his assistance as assessors on fact two persons being magistrates, native commissioners or sub-commissioners, or justices of the peace. Under this section, the Judge-President of the Eastern Districts in 1921 tried without a jury at Queenstown the charge of public violence preferred against certain natives ("Israelite" sect) in connection with the well-known Bulhoek affair

4. **Appellate Jurisdiction.**—The decisions of superior courts in the trial of criminal cases are, under section 368 of the *Criminal Procedure and Evidence Act*, 1917, subject to the appellate jurisdiction of the Appellate Division of the Supreme Court constituted under section 96 of the *South Africa Act.* In the case of the Natal Native High Court, this jurisdiction may be on both fact and law, though on points of law the provincial division of Natal exercises an intermediate jurisdiction on questions specially reserved. In the

cases of the provincial and local divisions, the jurisdiction of the Appellate Division in criminal cases is limited in practice to decisions on points of law. Such jurisdiction may be exercised on application for (*a*) arrest of judgment on the ground that the indictment discloses no offence; or (*b*) on the consideration of a special entry on the record made on the application of the accused or his counsel, in which an allegation of irregularity or illegality in the proceedings is made, the nature of which is indicated; or (*c*) on questions of law reserved at the trial for the consideration of the Appellate Division by the presiding judge either on his own motion or at the request of the prosecution or of the defence. The Appellate Court may either confirm the judgment of the trial court, or set it aside, or remit the case to the court below for judgment to be given, if it has not already been given, or itself give such judgment as ought to have been given, or make such other order as justice may require (s. 374).

As regards the decisions of magistrates' and other inferior courts in criminal cases, appeals against which are heard and determined, as described below, by the provincial and local divisions, the Appellate Division only exercises jurisdiction when special leave to appeal has been given by it from the judgment on appeal of the provincial or local division (*South Africa Act*, s. 105). One exception must be made to this statement. Under section 5 of Act No. 1 of 1911 the Appellate Division, if both the prosecutor and accused agree in writing, has jurisdiction to hear and determine a criminal appeal without any intermediate appeal being heard by a provincial division.

As above indicated, every decision involving a conviction in a criminal case by a magistrate's court, whether on law or fact and whether against the conviction or against the sentence passed, is subject to an appeal by the convicted person to the provincial division within the area of jurisdiction covering the magistrate's court, or if the court sat within the area of jurisdiction of the Griqualand West Local Division, is subject to appeal to that division, or, if it sat within the area of jurisdiction of the Eastern Districts Local Division, is subject to appeal to that division. The court to which such an appeal lies may affirm, alter, or reverse the conviction, or may affirm, reduce, or vary the sentence imposed, or may set aside or correct the proceedings of the magistrate's court, or remit the case to that court with such instructions relative to the taking of further evidence and generally as to any further proceedings to be taken as the Appellate Court may think fit to give. [S. 100 as read with section 95 (2) of Act No. 32 of 1917.]

In addition to the appeal jurisdiction of the provincial and local divisions, Chapter XIV of Act No. 32 of 1917 confers upon them a special jurisdiction to review the proceedings of any magistrate's court whenever a sentence of (*a*) imprisonment or other form of detention exceeding three months is imposed, or (*b*) a fine exceeding £25 is inflicted, or (*c*) whipping is ordered as a punishment except in the case of boys under sixteen years. The records are sent by the magistrate to the registrar of the provincial or local division concerned and submitted by the latter for consideration of a judge in chambers, who, if satisfied that the proceedings are in accordance with real and substantial justice, gives his certificate to that effect. Otherwise the case is dealt with in open court, which possesses the same powers as it possesses on appeal, and may direct the case to be argued. (S. 93 to s. 95 of Act No. 32 of 1917.) It was not till Act No. 13 of 1921 was passed (see s. 4) that this review jurisdiction was possessed in respect of *native cases* by the provincial division of Natal.

The only appeal by the Crown in any criminal case in a magistrate's court is when a criminal summons or charge is dismissed on exception or on the ground that it is bad in law or that it discloses no offence. In such case the Attorney-General may appeal against such dismissal [s. 100 (2) of Act No. 32 of 1917]. The Attorney-General may also under section 106 of the same Act bring the decision of a magistrate's court in a criminal case in review before the provincial division. The provincial division's ruling on such review does not affect the decision in the particular case, but serves for future guidance of magistrates' courts.

As indicated in § 1 (3) above, the decisions in criminal cases of native commissioners and sub-commissioners in the Transvaal are subject to appeal to or review by the provincial division, just as those of a magistrate's court; and the provincial division may make like orders on any such appeal.

In addition, every provincial division under the statute under which it may have been constituted prior to the constitution of the Union, has jurisdiction to review the proceedings of any inferior court on the ground that such inferior court has exceeded its jurisdiction or has been guilty of gross irregularity or has admitted illegal or incompetent evidence or rejected legal and competent evidence or has shown malice or corruption.

5. **Advocates, Attorneys, etc.**—The subjoined table gives the number of advocates, attorneys, notaries, and conveyancers admitted into the several divisions of the Supreme Court during 1924, and the total number on the roll at the 31st December of that year.

Under Act No. 7 of 1923, women are entitled to practise and be enrolled as advocates, attorneys, etc., in any Province of the Union on the same terms and conditions as apply to men.

ADMISSIONS OF ADVOCATES, ATTORNEYS, ETC., INTO DIVISIONS OF SUPREME COURT, 1924.

DIVISION.	ADVOCATES.		ATTORNEYS.		NOTARIES.		CONVEYANCERS.	
	Admitted, 1924.	Total on Roll, Dec., 1924.	Admitted, 1924	Total on Roll, Dec., 1924	Admitted, 1924.	Total on Roll, Dec., 1924.	Admitted, 1924.	Total on Roll, Dec., 1924.
Cape	11	59	36	830	26	776	8	209
Eastern Districts	2	124	1	241	—	—	1	3
Griqualand West	3	86	1	120	—	68	—	64
Natal	5	13	11	199*	4	115	9	93
Transvaal	15	266	38	1,137	24	730	17	567
Orange Free State	3	85	14	414	11	287	10	332
UNION	39	633	101	2,941	65	1,976	45	1,268

* Including Advocates and Attorneys practising in dual capacity; in previous years these were included under both Advocates and Attorneys.

§ 3. Civil Jurisdiction—Lower Courts.

1. **Magistrates' Courts.**—Up to the 1st January, 1918, the civil jurisdiction of magistrates' courts rested upon and was determined by the provisions of that considerable number of statutes to which reference has been made in describing the criminal jurisdiction of these courts. On the 1st January, 1918, the new consolidating and amending *Magistrates' Courts Act* (No. 32 of 1917) came into operation, and imposed uniformity in the jurisdiction of these courts throughout the Union.

The Act confers upon a magistrate's court jurisdiction (s. 29)—

(*a*) in actions in which is claimed the delivery or transfer of any property movable or immovable not exceeding £200 in value;
(*b*) in actions of ejectment against the occupier of land or premises within the district if the right of occupation does not exceed £200 in clear value to the occupier;
(*c*) in other actions (except those specifically excluded) where the claim or value of the matter in dispute does not exceed £200.

The following classes of actions, however, are specifically excluded from the jurisdiction of the magistrate's court, however little may be the amount at stake, viz., actions for or concerning—

(*a*) divorce and judicial separation;
(*b*) the validity and interpretation of wills and testamentary documents;
(*c*) status of persons in respect of mental capacity;
(*d*) specific performance or acts without alternative of damages, except as to rendering of accounts or delivery of property not exceeding £200;
(*e*) decree of perpetual silence;
(*f*) provisional sentence.

Except as to these specially excluded actions, a magistrate's court may acquire jurisdiction by the written consent of both parties, whatever may be the amount or value in dispute.

Incidental to all this jurisdiction in civil matters a magistrate's court may issue orders of personal arrest of persons suspected of absconding, attachment of property, interdicts prohibiting the removal of furniture which is subject to the landlord's hypothec for rent, and may enforce its payments not only by execution against movables primarily and afterwards against immovable property which is not subject to prior charges, but also by civil imprisonment, garnisheeing or attachment of debts due from third persons, and by order for payment in instalments.

Appeals lie to the provincial division of the Supreme Court from final judgments, or orders having the effect of finality, and from decisions over-ruling exceptions; the

Griqualand West and the Eastern Districts Local Divisions having concurrent jurisdiction with the Cape Provincial Division in respect of decisions of courts within the respective areas of jurisdiction. The parties, may, however, agree in writing before the hearing that there shall be no appeal, and that the judgment of the magistrate's court shall be final. Formerly appeal lay from a magistrate's court to a circuit court, except in the Transvaal. This is no longer possible under the present Act.

The *Magistrates' Courts Act*, 1917, has been applied to the mandated territory of South-West Africa.

2. **Courts of Special Justice of the Peace.**—These courts have possessed no civil jurisdiction in any Province under their respective laws. The *Special Justices of the Peace Act*, No. 2 of 1918, gives these courts, when sitting more than twenty-five miles from any place where a magistrate's court is held (whether as a periodical court or at the seat of magistracy), jurisdiction to try a civil action in which is claimed a liquidated sum not exceeding £25; but if the sum claimed exceeds £5 the defendant can insist on having the action removed to the magistrate's court. Appeals in civil matters from a court of special justice of the peace lie as in criminal matters to the magistrate's court, with a further appeal to the provincial division of the Supreme Court.

3. **Courts of Native Commissioners.**—The courts of Native Commissioners or Sub-Commissioners in the Transvaal have certain civil jurisdiction (though not exclusive jurisdiction) by virtue of Ordinance No. 3 of 1902 and Law No. 4 of 1885 (s. 4), to decide civil disputes between native and native belonging to tribes in the neighbourhood or at the suit of a European against a native of such a tribe. An appeal lies to the Transvaal Provincial Division against the decision of the native commissioner or sub-commissioner as if it were a decision of a magistrate's court.

4. **Record of Civil Cases, Inferior Courts.**—The collection of statistics under this head was suspended for financial reasons on the 31st December, 1921. The data for their preparation were received for 1921, but tabulation was not proceeded with. Full particulars for 1920 will be found in the fourth issue of this *Year Book*.

§ 4. Civil Jurisdiction—Superior Courts.

1. **Provincial and Local Divisions.**—The manner in which the several superior courts, viz., the Appellate Division, the Provincial Divisions, and the Local Divisions (including circuit courts) came into being at the establishment of the Union, by virtue of Part VI of the *South Africa Act*, is described above (§ 2). A provincial and a local division (otherwise known as a superior court) has, in addition to any original jurisdiction exercised by the corresponding court of the Colonies at the date of the establishment of Union, jurisdiction in all matters in which the Government of the Union or a person suing or being sued on behalf of such Government is a party or in which the validity of any provincial ordinance comes into question [*South Africa Act*, 1909, section 98 (31)]. Generally it may be said that a provincial division in each Province has unlimited jurisdiction throughout the Province in respect of all causes or matters arising within that area; while each local division has jurisdiction (slightly restricted in some respects) in regard to causes arising and persons residing within its defined area. For example, the Witwatersrand Local Division, while it has concurrent jurisdiction with the provincial division so long as the cause or matter arises within its defined limits, is expressly excluded from exercising any appellate jurisdiction or from reviewing the proceedings of inferior courts (Proclamation No. 14 of 1902, s. 27), and in regard to insolvency and certain other matters its jurisdiction is that of a circuit court only. The Eastern Districts Local Division has certain appellate and review jurisdiction (see § 2 above), but in regard to insolvency, registration of title, administration of estates, and certain other matters, its jurisdiction is limited to that of a circuit court only (Act No. 35 of 1896, s. 25). The limitations placed upon the Griqualand West Local Division are the same as those placed on the Eastern Districts Local Division (Act No. 39 of 1877, s. 10, and Act No. 35 of 1896, s. 18).

Special jurisdiction is given to any provincial division in which a parliamentary or provincial council election is held (but not to a local division), to try election petitions, i.e. petitions complaining of an undue return or undue election of a member, by reason of want of qualification, disqualification, corrupt or illegal practice, irregularity, or any other cause whatever. (See Chapter V of Act No. 12 of 1918.) In the trial of election petitions by *any* provincial division under Chapter V of Act No. 12 of 1918, the quorum consists of not less than three judges, though one judge may adjudicate on an interlocutory application other than an application for the withdrawal of a petition [Section 111 (i)].

The provincial divisions sit at Cape Town, Pietermaritzburg, Pretoria, and Bloemfontein respectively, the Cape of Good Hope Division consisting of five judges, the Natal Division of four judges, the Transvaal Division of seven judges, and the Orange Free State of three judges. The Eastern Districts Local Division consists of three judges; the

Griqualand West Local Division of one judge; and one judge of the Provincial Division may preside over any sitting of the Witwatersrand Local Division.

In all the Cape divisions, the court may sit with one judge only as a divisional court, and under Act No. 10 of 1917 as many divisional courts as there are judges available to preside may sit at the same time for the dispatch of civil business. In the Transvaal Provincial Division (except in vacation time, when one judge constitutes a quorum) the quorum of the court is two, except in motions, applications, and trial cases where the defendant is in default, when one judge sitting in chambers constitutes the court. By Ordinance No. 31 of 1904 (s. 1), however, a divisional court of one judge may exercise the civil jurisdiction of the court in any trial action if both parties consent, or if the action is remitted to such a divisional court for trial by order of the full court. A like provision exists as regards the Natal Provincial Division [Act No. 39 of 1896 (Natal), s. 9], and as regards the Orange Free State Provincial Division by Act No. 11 of 1921. In Natal also, one judge sitting in chambers, or the like, may exercise all the powers of the full court except in arguments on exceptions to pleadings, applications for new trials, objections to accounts in insolvency, and in the administration of estates, rehabilitations in insolvency, and in trials not falling within section 9 of the Act. In those cases the full court is necessary.

In the Orange Free State Provincial Division the quorum in civil proceedings is as in the Transvaal, both as to term, time, and vacation (Ordinance No. 13 of 1904, s. 4 and s. 5, and Act No. 11 of 1921).

Further provisions as to jurisdiction, transfers of suits, etc., are as follows:—

(*a*) By section 112 of the *South Africa Act*, the judgment or order of any one division of the Supreme Court may be enforced outside the area of jurisdiction of such division, by lodging with the registrar of the provincial division having jurisdiction in the place where it is desired to enforce the judgment, an authenticated copy of the judgment or order. The registrar, on proof that the judgment or order is still unsatisfied, will issue process for the execution thereof, and such process will be executed as if it had been issued originally from that division.

(*b*) Any provincial or local division may, under section 113 of the *South Africa Act*, transfer a civil suit to another division when it is satisfied that it can be more conveniently or fitly heard or determined in that other division, and that this division will proceed with the suit as if it had originally been commenced therein.

(*c*) By section 3 of Act No. 27 of 1912, a civil process for commencing civil proceedings may, subject to compliance with certain forms, be served throughout the Union upon any defendant who resides or is for the time being in the Union, and is subject also to the jurisdiction of the Court.

(*d*) When a defendant resides in the Union, it is provided by section 5 of Act No. 27 of 1912 that no attachment of his person or property to found jurisdiction is to be ordered, and if service of a summons can be effected in any other way, no service of a civil summons on a defendant by way of edictal citation is to be authorized.

(*e*) A writ of arrest of the person, issued out of any superior court in connection with civil proceedings, may be executed thoughout the Union by transmitting the writ to the proper officer at the place where the person to be arrested resides or is for the time being.

2. **Appellate Division.**—In addition to the provincial and local divisions, there exists as indicated above, in § 2 (4), the Appellate Division of the Supreme Court. This division was created by section 96 of the *South Africa Act*, and now, since the passing of Act No. 12 of 1920, consists of the Chief Justice of South Africa and four judges of appeal. Its work as a court of criminal appeal is described in § 2 (4). It is, however, chiefly occupied in the final determination of civil causes and matters. It may here be mentioned that it succeeded to the jurisdiction of the old Cape Supreme Court as a court of appeal from the High Court of Southern Rhodesia. Further jurisdiction was conferred upon it by section 4 of Act No. 12 of 1920, to hear and determine appeals from orders or judgments of the newly constituted High Court of South-West Africa. As regards civil appeals from courts of the Union, appeals which before the establishment of the Union lay to the Supreme or High Courts of the late Colony go direct to the Appellate Division, except in the case of appeals against interlocutory orders of a single judge, orders on application, motions or petitions, judgments on summonses for provisional sentence, and judgments as to costs only. Those excepted matters are still subject to appeal, first to the provincial division, unless, under section 5 of Act No. 1 of 1911, the parties have agreed to go direct to the Appellate Division and dispense with an intermediate appeal. Where before the establishment of the Union an appeal lay to the Privy Council the appeal now only lies to the Appellate Division, whose decision is final, unless the Privy Council itself grants special leave to appeal to it from

the Appellate Division's decision (s. 104 and s. 105 of the *South Africa Act*). The Judicial Committee of the Privy Council has intimated that it will, as a general rule, only grant such leave in civil cases when the matter in issue is of some constitutional importance.

While before the establishment of the Union there must have been a certain amount at stake to enable any person to appeal as of right to the Privy Council, the substituted right of appeal to the Appellate Division is not limited by reason of the amount or value in dispute. Appeals to provincial or local divisions on judgments of inferior courts cannot be taken further to the Appellate Division unless the latter gives special leave. A special appellate jurisdiction in the matter of decisions of a provincial division at the trial of an election petition is conferred on the Appellate Division by Act No. 12 of 1918 (s. 132); but the leave of the Appellate Division must first be obtained.

The quorum of the Appellate Division is five when the appeal is from a court of two or more judges, and three when the appeal is from the decision of one judge (*South Africa Act*, s. 110). In vacation time one judge of the Appellate Division may hear and determine applications for special leave to appeal or for leave to proceed *in forma pauperis*, or for any interlocutory order (Act No. 1 of 1911, s. 6).

The process of the Appellate Division runs throughout the Union. As all its judgments have full effect in every Province, it naturally follows that they must be executed as if they were original judgments or orders of a provincial division (*South Africa Act*, s. 111).

The Chief Justice and judges of the Appellate Division, as judges of the Supreme Court of South Africa, collaborate with the judges of the other divisions in framing rules of court for the conduct of the proceedings in any provincial or local division.

§ 5. Source, Development, and Nature of the Law of South Africa.

Apart from statute, the law of South Africa as it exists to-day is essentially the *Roman-Dutch* system. The exposition and development of that system, influenced by English law and local usage, has resulted in a symmetrical and lucid body of law, on the one hand, by virtue of its reverence for local usage, largely freed of those provisions which the general consensus of a more enlightened age has disapproved, and on the other hand showing a singular absence of those subtleties which not uncommonly accrue in the course of their development to systems of more recent origin. The gradual decadence of *Roman-Dutch Law* in other settlements into which it was introduced, which in 1916 led in British Guiana to legislation almost completely displacing it, has found no counterpart in South Africa where, under the impetus given by the creation of one Appeal Court for the whole Union, as well as for Southern Rhodesia and South-West Africa, it may confidently be expected to continue to provide a system pre-eminently suited to the conditions of the country.

An account of the historical development of the law of South Africa will be found in the sixth and earlier issues of this *Year Book*.

§ 6. Union Department of Justice.

1. **Constitution of Department.**—A Ministry of Justice was created at the establishment of the Union, in substitution for the practice previously in force in each of the Colonies under which the Attorney-General had been a member of the Ministry, and had also assumed ministerial responsibility for the Law Department of the Colony. The system in force in the Union is that set out in section 139 of the *South Africa Act*, which is as follows:—

> The administration of justice throughout the Union shall be under the control of the Minister of State, in whom shall be vested all powers, authorities, and functions, which shall at the establishment of the Union be vested in the Attorney-General of the Colonies, save and except all powers, authorities, and functions relating to the prosecution of crimes and offences, which shall in each Province be vested in an officer to be appointed by the Governor-General-in-Council, and styled the Attorney-General of the province, who shall also discharge such other duties as may be assigned to him by the Governor-General-in-Council: Provided that in the province of the Cape of Good Hope the Solicitor-General for the Eastern Districts and the Crown Prosecutor for Griqualand West shall respectively continue to exercise the powers and duties by law vested in them at the time of the establishment of the Union.

The office of Crown Prosecutor for Griqualand West was abolished by section 13 of Act No. 27 of 1912, and his powers, authorities, jurisdiction, and duties conferred and imposed on the Attorney-General of the Cape of Good Hope.

Section 139 of the *South Africa Act* was for this reason amended by section 2 of Act No. 14 of 1914, so as to substitute Attorney-General for Minister as *curator ad litem* of lunatics, a portion of which was confirmed by the *Mental Disorders Act* (No. 38 of 1916),

section 14, when section 2 of Act No. 14 of 1914 was repealed. By the later Act, the Solicitor-General of the Eastern Districts is, in the area in which he exercises his functions, *curator ad litem* of persons detained as mentally disordered under a magistrate's or judge's order.

The powers, duties, and functions of the Attorney-General in relation to criminal prosecutions are fully dealt with in Act No. 31 of 1917 (see particularly Chapter II thereof).

Particulars as to the functions of the Union Department of Justice are given in Chapter II, and particulars as to the cost of the administration are given in Chapter XXII.

The permanent head of the Department is the Secretary for Justice.

2. **Judges and Staff of the Supreme Court.**—The names of the Judges and Registrars of the several divisions of the Supreme Court of the Union are given below :—

SUPERIOR COURTS AND JUDICIARY OF THE UNION.

Supreme Court of South Africa, Appellate Division :—

Chief Justice	The Rt. Hon. Sir J. Rose-Innes, P.C., K.C.M.G.
Judges of Appeal	Sir W. H. Solomon, K.C.S.I., K.C.M.G.; Hon. J. de Villiers; Sir J. G. Kotzé, Kt.; and Sir J. W. Wessels, Kt.

Provincial and Local Divisions :—

Judge-President	(Cape of Good Hope)	Sir M. W. Searle, Kt.*
,,	(Transvaal)	Hon. J. S. Curlewis.
,,	(Natal)	Sir J. C. Dove Wilson, Kt.
,,	(Orange Free State)	Sir J. E. R. de Villiers.
,,	(Eastern Districts)	Sir T. L. Graham, Kt.
Puisne Judge	(Cape of Good Hope)	Hon. F. G. Gardiner.
,,	,,	Hon. L. E. Benjamin.
,,	,,	Hon. H. S. van Zyl.
,,	,,	Hon. E. F. Watermeyer.
,,	,,	Hon. H. M. Louwrens.
,,	,,	Hon. P. S. T. Jones.
,,	(Griqualand West)	Hon. F. A. Hutton.
,,	(Eastern Districts)	Hon. W. Pittman.
,,	,,	Hon. F. J. W. van der Riet.
,,	(Transvaal)	Hon. D. de Waal.
,,	,,	Hon. J. Stratford.
,,	,,	Hon. B. A. Tindall.
,,	,,	Hon. F. E. T. Krause.
,,	,,	Hon. R. Feetham.
,,	,,	Hon. L. Greenberg.
,,	,,	Hon. J. H. F. E. R. C. Gey van Pittius.
,,	(Natal)	Hon. T. F. Carter.
,,	,,	Hon. E. L Matthews.
,,	,,	Hon. F. S. Tatham.
,,	(Orange Free State)	Hon. A. J. McGregor.
,,	,,	Hon. H. F. Blaine.

Native High Court, Natal :—

Judge-President	H. G. Boshoff.
Judge	A. W. Leslie.
,,	F. A. Farrer.
,,	C. F. Hignett.

REGISTRARS OF COURTS.

Appellate Court	M. C. Cloete.
Cape of Good Hope :—	
Cape Town	R. G. Russouw.
Grahamstown (Eastern Districts)	A. M. Black.
Kimberley (Griqualand West)	T. O'Hagan (Assistant Registrar).
Transvaal :—	
Pretoria	I. G. Horak.
Johannesburg (Local Division)	J. C. Hinsbeeck (Assistant Registrar).
Natal	K. W. McAlister.
Orange Free State	W. H. Fitchett.
Native High Court (Natal)	W. H. D. Goss.

* Killed in Salt River Railway Disaster, June, 1926; successor, Mr. Justice Gardiner.

3. **Sheriffs**—(i) *Appointment and Functions.*—In each of the Provinces of the Union there is a Sheriff, who is an officer of the Public Service, and whose duties are to execute, either by himself or by deputies appointed by him and duly authorized under his hand and seal, the sentences, decrees, judgments, writs, summonses, rules, orders, warrants, commands, and processes of any division of the Supreme Court within his Province. The Charter of Justice of the Colony of the Cape of Good Hope sets out in section 27 that "the Sheriff shall by himself or his sufficient deputies, to be by him appointed and duly authorized under his hand and seal, and for whom he shall be responsible during his continuance in such office, execute, and the said Sheriff, by himself and his said deputies, are hereby authorized to execute, all the sentences, decrees, judgments, writs, summonses, rules, orders, warrants, commands, and processes of the said Supreme Court of the Cape of Good Hope, or of the Circuit Courts of the said Colony hereafter mentioned, and shall make a return of the same, together with the manner of the execution thereof, to the Supreme Court of the Cape of Good Hope, or to the said Circuit Courts, as the case may be, and shall receive and detain in prison all such persons as shall be committed to the custody of such Sheriff by the Supreme Court of the Cape of Good Hope, or by the said Circuit Courts or by the Chief Justice, or by any other Judge of the said Courts."

This provision was closely followed in the other Provinces (see in Natal 66 of the *Supreme Court Act*, No. 39 of 1896, in the Transvaal 4 of Proclamation No. 17 of 1902, and in the Orange Free State 3 of Ordinance No. 9 of 1902).

(ii) *Laws Defining Powers and Duties.*—The powers and duties of the Sheriff are set out in the rules of the various divisions of the Supreme Court and in the Cape Province, in Ordinance No. 37 of 1828, in the Transvaal in Ordinance No. 9 of 1902, and the Orange Free State in Proclamation No. 17 of 1902. In criminal matters the powers of the Sheriffs throughout the Union are also dealt with in the *Criminal Procedure and Evidence Act*, No. 31 of 1917.

(iii) *Special Powers and Duties in Criminal Matters.*—Section 341 of the Criminal Procedure and Evidence Act, No. 31 of 1917, enacts that as soon as it is practicable after a sentence of death is passed, the Judge who passed the sentence or any other Judge of the Court shall issue his warrant to the Sheriff or his deputy for the execution of the sentence, but that the warrant shall not be executed until the Minister of Justice has, in writing signed by himself, given notice to the Sheriff or his deputy that the Governor-General has decided not to exercise in the case the Royal prerogative of mercy. As soon after the receipt of such notice by the Sheriff or his deputy as fitting arrangements for the execution of the sentence can be made, the warrant must be executed by the Sheriff or his deputy.

The process of the Court for summoning an accused person to answer any indictment or to subpoena witnesses is by writ or warrant directed to the Sheriff or his deputy in the prescribed form (see paragraph 3 of the Fifth Schedule and form 16 of the Fifth Schedule to Act No. 31, 1917).

The Sheriff receives the jury lists in criminal cases and keeps the jurors' book. He, or his deputy, in manner provided in section 186 of Act No. 31 of 1917, draws the names of the jurors to be summoned for the criminal sessions, and summonses the persons whose names are so drawn (see Chapter XI of Act No. 31 of 1917).

§ 7. Statistics of Crime.

1. **General.**—The new system of collecting criminal statistics which was inaugurated on 1st January, 1921, has proved a complete success, and statistics relating to persons brought to trial in the Union and South-West Africa are furnished by the Statistics Office to the Commissioner of Police for administrative purposes within fifteen days of the close of each month, and a consolidated annual return is available within one month of the close of the year. The figures are also included in the publications of the Statistics Office.

The system involves the completion of a form setting forth the race, sex, age, nationality, birthplace, occupation, offence and result of trial of every person arrested, summoned or warned.

Owing to financial stringency the Government decided to discontinue the collection of Penological Statistics. Figures relating to crime as affected by environment, antecedents, drink, etc., are, therefore, not available; but from other sources it has been found possible to differentiate between serious crime committed in industrial and rural areas. For the same reason the collection of data respecting civil actions has also been suspended, as stated in § 3, paragraph 4 above.

It will be observed from the table below that no full particulars of crime are available before 1913, when the *Police Act* (Act No. 14 of 1912) came into operation. Prior to this date the Union was policed by a number of forces under separate control, and it was found impracticable to consolidate the figures of the different systems then in use. In 1913 the system of collecting criminal statistics then in use in the Transvaal Province was adopted throughout the Union.

The following tables (i) and (iii) show the total number of prosecutions, convictions, etc., for all offences during a series of years. Particulars of serious crimes in the Union are given in the following paragraph. Throughout this section, in the figures for persons charged in respect of the year 1921 and subsequent years, *no account is taken of persons awaiting trial.*

(i) NUMBER OF PERSONS CHARGED BEFORE COURTS, 1912* TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	Per 1,000 of Population.
1912	†	†	†	†	280,115	46
1913	82,140	59,748	113,402	23,984	279,274	45
1914	84,438	57,817	106,824	21,918	270,997	42
1915	83,254	55,267	121,712	23,287	283,520	44
1916	85,866	60,833	131,767	26,328	304,794	47
1917	83,401	59,162	125,630	26,039	294,232	44
1918	78,035	54,767	112,939	22,858	268,599	40
1919	83,985	59,329	134,514	25,364	303,192	45
1920	87,854	64,752	137,959	29,346	319,911	47
1921‡	85,089	70,397	150,213	29,602	335,301	49
1922‡	90,782	68,885	156,018	30,583	346,268	48
1923‡	100,548	74,927	180,547	34,064	390,086	55
1924‡	109,723	83,071	192,022	35,354	420,170	58

* Complete figures for Union not available before 1912. † Figures not available.
‡ Excluding persons awaiting trial.

(ii) NUMBER OF PERSONS CONVICTED, ACQUITTED, ETC., BY COURTS, 1913 TO 1924.

Year, and Police Division.	Convicted.		Acquitted or Discharged.	Bail Estreated.	Cases Withdrawn.	Died or Absconded.	Committed to Asylum.	Total.
	Male.	Female.						
UNION, 1913–24.								
1913	190,415	21,118	25,348	23,581	12,777	1,100	145	274,484
1914	182,952	21,253	23,759	25,288	13,828	520	127	267,727
1915	191,582	21,576	22,173	31,044	13,136	331	100	279,942
1916	201,285	23,168	23,347	38,932	14,178	374	126	301,410
1917	192,374	23,369	21,524	40,815	12,516	512	92	291,202
1918	178,739	20,965	21,173	31,683	11,433	321	137	264,451
1919	210,131	21,400	23,466	30,727	13,017	401	140	299,282
1920	215,549	22,135	25,235	37,606	14,056	315	139	315,035
1921	223,672	25,588	27,114	42,969	15,608	203	147	335,301
1922	269,133	30,996	28,535	*	17,216	214	174	346,268
1923	304,780	35,792	30,319	*	18,830	141	224	390,086
1924	328,706	40,829	31,972	*	18,316	149	198	420,170
POLICE DIVISIONS, 1924.								
Cape Eastern	24,652	5,128	3,780	*	1,431	12	30	35,033
Cape Western	34,869	4,639	3,386	*	1,844	15	26	44,779
Kimberley	7,245	990	782	*	441	6	1	9,465
Transkei	15,047	1,446	2,469	*	1,443	28	13	20,446
Natal	65,376	6,067	6,983	*	4,561	36	48	83,071
Transvaal	78,309	7,194	5,662	*	4,200	38	20	95,423
Witwatersrand	76,915	10,821	5,840	*	2,970	6	47	96,599
Orange Free State	26,293	4,544	3,070	*	1,426	8	13	35,354
TOTAL	328,706	40,829	31,972	*	18,316	149	198	420,170

* Figures included under convictions.

(iii) CONVICTIONS FOR VARIOUS CLASSES OF OFFENCES IN UNION, 1913 TO 1924.

YEAR.	OFFENCES AGAINST						Statutory Offences.	Revenue and Municipal Offences.	Total Convictions.
	The State.	The Administration of Justice.	Public Peace.	Public Order.	The Person.	Property.			
1913 ...	265	2,305	13,514	5,787	19,474	22,119	110,577	37,492	211,533
1914 ...	2,310	2,311	13,067	6,296	19,280	22,806	102,493	35,696	204,259
1915....	1,173	2,313	11,846	6,400	18,197	24,271	107,362	41,596	213,158
1916....	360	2,503	10,966	7,068	18,379	27,291	114,133	43,753	224,453
1917 ...	522	2,533	9,947	6,956	18,161	26,952	112,329	38,343	215,743
1918 ...	504	2,655	9,207	6,446	18,077	26,250	103,487	33,078	199,704
1919 ...	339	3,298	9,574	7,161	21,204	29,491	115,629	44,835	231,531
1920 ...	312	3,339	10,047	8,281	20,895	34,202	115,146	45,462	237,684
1921 ...	436	3,594	12,771	8,928	21,357	31,587	142,212	28,375	249,260
1922 ...	2,503	3,925	13,426	10,051	22,424	32,999	176,635	38,166	300,129
1923....	739	4,384	11,639	12,090	23,989	35,642	209,703	42,386	340,572
1924....	897	3,964	14,004	12,208	25,933	39,964	186,214	86,351	369,535

2. **Serious Crime.**—A large proportion of the persons brought before the courts of the Union each year are charged with petty offences, chiefly contravention of statutes, common assault and common theft. For the most part the option of a fine is given in such cases. On the other hand, an appreciable percentage of the total charges before the courts relates to what may be properly designated as serious crime. Statistics of such cases are contained in the tables hereunder, which show the results of serious criminal charges during a period of years, details of such charges for two years, and particulars of murder cases, stock thefts and offences under the liquor laws during a period of years.

It will be observed that the totals for the years 1923 and 1924 are considerably smaller than those for the two preceding years. This is not because of a decrease in the incidence of serious crime in the Union, but because certain items, not included in the category of serious crime prior to 1923, were added in that year and in 1924, and because certain others previously taken account of were excluded. The offences added were bigamy, contraventions of the diamond laws, buying, selling, and possession of gold, offences against the immorality laws, Europeans selling liquor to natives, public violence, and receiving stolen property. Prior to the year 1923 all cases of common theft were statistically included under serious crime. In that year it was decided that henceforth common theft cases were only regarded as serious crime where the value of the goods stolen was estimated to be in excess of £50.

(i) RESULTS OF CRIMINAL CHARGES IN SERIOUS CASES, UNION, 1913 TO 1924.

Year.	Cases Reported.	Undetected Cases.	No Crime Disclosed.	Persons Convicted.	Race of Persons Convicted.		Per 10,000 of Population.	
					European.	Other.	European.	Other.
1913....	37,517	12,744	5,040	14,413	1,603	12,810	12	26
1914....	46,226	14,313	5,366	21,600	1,910	19,690	14	40
1915....	49,016	15,246	5,182	23,030	1,906	21,124	14	42
1916....	53,435	16,906	6,038	25,338	1,737	23,601	12	46
1917....	55,562	16,649	5,941	24,553	1,620	22,933	11	44
1918....	53,649	16,906	5,454	24,606	1,566	23,040	10	43
1919....	61,797	19,719	5,993	27,952	2,081	25,871	14	49
1920....	72,286	25,326	6,535	32,845	2,499	30,346	16	57
1921....	67,148	22,908	6,667	29,814	2,401	27,413	16	51
1922....	66,697	20,861	6,519	29,343	2,728	26,615	18	48
1923....	34,711	8,389	4,104	19,320	2,617	16,703	17	30
1924....	41,626	7,509	5,933	23,205	2,473	20,732	15	36

(ii) COMPARATIVE STATEMENT OF SERIOUS CRIME REPORTED, 1923 AND 1924.

Offence.	1923.			1924.		
	Cases Reported.	Undetected Cases.	No. Crime Disclosed.	Cases Reported.	Undetected Cases	No Crime Disclosed.
Coining	19	5	—	11	2	3
Concealment of birth	107	21	26	129	24	25
Sedition	1	—	—	1	—	—
Treason	—	—	—	2	—	—
Public violence	616	6	10	658	3	5
Bigamy	48	—	11	61	—	9
Immorality Law—						
Keeping a brothel	33	—	12	56	—	28
Living on the proceeds of immorality	11	1	—	21	2	5
Procuring	1	—	—	3	—	—
Soliciting	313	—	3	295	2	—
Other offences	82	—	2	48	—	3
Abortion	19	2	5	31	—	11
Assault with intent	3,185	91	90	3,668	59	117
Assault on police	479	10	1	598	9	—
Infanticide	37	5	4	50	4	8
Homicide (culpable)	242	—	12	280	1	11
Murder	405	21	66	371	10	52
Murder, attempted	194	10	36	187	9	27
Assault, indecent	576	19	38	552	6	16
Bestiality	80	3	6	79	1	3
Incest	84	2	7	53	2	8
Rape	691	7	87	700	15	75
Rape, attempted	453	22	37	462	15	44
Carnal connection with females under the age of consent	322	3	23	329	1	40
Sodomy	76	3	3	64	1	3
Arson	443	104	77	430	85	89
Extortion	77	7	13	101	3	16
Forgery	619	29	26	615	20	30
Receiving stolen property	198	—	2	196	1	2
Theft—						
Motor and cycle	2,899	1,305	831	3,349	1,037	1,204
(Common) major	570	432	176	457	75	134
By conversion and embezzlement	1,210	53	167	1,251	30	164
By fraud and false pretences	1,962	110	295	2,136	83	312
Housebreaking by day	2,047	744	119	2,390	633	183
Housebreaking by night	7,953	4,096	559	8,320	3,458	698
Pocket-picking	280	34	13	241	18	21
Produce, skins, and feathers	121	12	11	231	23	28
Stock	6,681	1,119	1,195	11,382	1,766	2,398
By violence (robbery)	619	109	124	660	85	132
Diamond laws	319	—	10	282	20	22
Liquor law—whites selling to natives	541	4	5	777	6	7
Buying, selling, and possession of gold	98	—	2	99	—	—
TOTAL	34,711	8,389	4,104	41,626	7,509	5,933

(iii) PERSONS CHARGED WITH MURDER, 1913 TO 1924.

YEAR.	CONVICTED.			Discharged or Withdrawn.	Died or Escaped.	Insane.	Total Number Dealt with.
	European.	Other.	Total.				
1913	1	47	48	242	15	*	305
1914	2	55	57	251	4	*	312
1915	2	77	79	191	3	*	273
1916	2	47	49	252	4	*	305
1917	1	65	66	233	6	*	305
1918	2	45	47	250	8	*	305
1919	2	100	102	226	5	5	338
1920	7	101	108	331	2	11	452
1921	3	138	141	272	6	9	428
1922	18	35	53	244	1	6	304
1923	5	67	72	285	3	5	365
1924	6	76	82	312	8	8	410

* Figures not available.

(iv) STOCK THEFTS IN UNION, 1913 TO 1924.

Year.	Number of Persons Prosecuted.	Number of Persons Convicted.			Convictions for Thefts of:		
		European.	Other.	Total.	Horses, etc.	Large Stock.	Small Stock.
1913....	4,059	138	2,574	2,712	*	*	*
1914....	4,815	104	3,148	3,252	*	*	*
1915....	5,739	158	3,844	4,002	*	*	*
1916....	6,828	130	4,557	4,687	224	369	4,094
1917....	5,253	84	3,532	3,616	249	314	3,053
1918....	4,445	80	2,939	3,019	206	282	2,531
1919....	5,457	105	3,526	3,631	283	405	2,943
1920....	6,863	118	4,508	4,626	319	564	3,743
1921....	4,955	127	3,357	3,484	315	415	2,754
1922....	5,205	138	3,574	3,712	321	397	2,994
1923....	5,603	151	3,787	3,938	367	366	3,205
1924†...	7,063	162	4,906	5,068	401	397	4,270

* Not available in detail.

† Number of stock reported stolen: Horses, etc., 3,345; Large Stock, 5,162; Small Stock, 52,252 (including 46,840 sheep and goats).

(v) OFFENCES AGAINST LIQUOR LAWS (EXCLUDING DRUNKENNESS),* UNION, 1913 TO 1924.

Year.	Breach of Licence.	Conveying without Permit.	Distilling.	Possession of Kaffir Beer.	Possession of Other Liquor.	Sales without Licence.
1913†.....	—	—	—	—	—	—
1914†.....	—	—	—	—	—	—
1915†.....	—	—	—	—	—	—
1916.....	109	70	—	5,427	4,456	100
1917.....	102	43	1	5,552	3,329	218
1918.....	98	16	—	6,414	3,335	189
1919.....	112	14	1	7,043	3,340	210
1920.....	108	11	—	7,571	4,569	180
1921.....	49	13	—	10,624	2,228	221
1922.....	53	14	2	15,503	2,806	229
1923.....	45	27	3	18,037	3,287	203
1924.....	33	20	2	22,447	3,423	330

Year.	Supplying Black-listed Persons.	Coloured Selling to Coloured.	European Selling to Coloured.	Other Offences.	Race of Persons Convicted.	
					European.	Other.
1913†.....	—	—	—	—	1,182	8,778
1914†.....	—	—	—	—	995	10,881
1915†.....	—	—	—	—	1,056	11,521
1916.....	58	909	736	64	953	10,976
1917.....	63	752	695	185	907	10,033
1918.....	92	666	459	128	634	10,763
1919.....	60	666	434	162	633	11,409
1920.....	55	759	404	154	1,061	12,750
1921.....	59	793	365	207	535	14,023
1922.....	48	597	346	204	519	19,283
1923.....	41	672	429	190	607	22,327
1924.....	40	767	633	212	817	27,090

* See Chapter VIII. † Not available in detail.

3. **Analysis of Statistics of Crime, 1924.**—(i) *Persons Arrested, Summoned or Warned.*—The number of persons arrested, summoned or warned during 1923 and 1924 was as follows :—

1923..... 390,086 ; percentage of population..... 5·44
1924..... 420,170 ; percentage of population..... 5·76.

The *race and sex* of the persons concerned in 1924 were as follows :—

Race.	Male.	Female.	Total.	Per 1,000 of Population.	
				Male.	Female.
European.....	53,816	2,718	56,534	65·37	3·45
Other.....	320,253	43,383	363,636	110·55	15·57

The *predominant offences* in the Union in 1924 were as follows : Municipal offences 47,575 ; Native Pass Law, 46,100 ; Hut and Poll Tax, 32,598 ; common assault, 26,664 ; common theft, 20,990 ; Masters and Servants Act, 19,327 : drunkenness, 26,358 ; possession of kaffir beer, 23,719 ; diseases of stock, 14,145.

Amongst Europeans the predominant offences were : Municipal offences, 12,075 ; drunkenness, 4,849 ; Motor Ordinances, 6,530 ; common assault, 3,692 ; poll tax, 2,852 ; stock diseases, 2,336 ; Police offences, 1,626 ; common theft, 1,644.

(ii) *Serious Crime.*—Serious offences were alleged against 31,203 persons representing 7·43 per cent. of the persons brought before the Courts. Of these 3,609 were Europeans, 22,328 natives, 618 Asiatics, and 4,648 other non-European persons. The number of Europeans tried for serious offences was equivalent to 6·38 per cent. of all persons of that race brought before the courts. The corresponding percentages in the case of the other races were : Natives, 7·20 ; Asiatics, 5·94 ; and other non-European persons, 10·76.

(iii) *Disposal of Cases.*—The percentage of convictions, acquittals, etc., to the total number of persons brought before the Courts in 1924 was :—

Heading.	Convicted or Bail Estreated.	Discharged.	Escaped.	Insane.	Died.	Case Withdrawn.
	%	%	%	%	%	%
All cases.....	87·95	7·61	0·01	0·05	0·02	4·36
Serious crime....	74·37	19·73	0·05	0·22	0·10	5·53

(iv) *Convictions for Serious Crime.*—The following table shows the convictions for various classes of serious offences during 1923 and 1924, according to race of the persons convicted :—

COMPARATIVE STATEMENT OF CONVICTIONS FOR SERIOUS OFFENCES, SHOWING RACE OF PERSONS CONVICTED, 1923 AND 1924.

Offence.	1923.					1924.				
	European.	Native.	Asiatic.	Other Non-European.	Total.	European.	Native.	Asiatic.	Other Non-European.	Total.
Coining	—	5	—	1	6	2	2	—	—	4
Concealment of birth	7	34	—	12	53	7	47	2	18	74
Sedition	338	—	—	—	338	—	1	—	—	1
Treason	20	—	—	—	20	2	—	—	—	2
Public violence	24	2,594	29	41	2,688	3	2,858	67	23	2,951
Bigamy	13	15	1	6	35	11	15	—	8	34
Immorality Law—										
Keeping a brothel	6	3	2	2	13	11	1	4	22	38
Living on the proceeds of immorality	6	1	—	2	9	4	1	—	6	11
Procuring	—	—	—	—	—	—	1	—	3	4
Soliciting	83	32	—	209	324	60	37	—	199	296
Other offences	19	16	1	7	43	15	36	2	3	56
Abortion	—	—	—	—	—	2	1	—	—	3
Assault with intent	105	2,075	35	336	2,551	93	2,569	34	448	3,144
Assault on police	43	414	2	33	492	49	493	3	41	586
Infanticide	—	6	—	2	8	1	10	1	4	16
Homicide (culpable)	7	439	1	21	468	15	534	—	23	572
Murder	5	66	—	1	72	6	67	—	9	82
Murder, attempted	5	39	—	9	53	5	36	1	—	42
Assault, indecent	30	309	4	37	380	32	381	8	35	456
Bestiality	3	43	1	14	61	1	45	1	15	62
Incest	4	12	—	11	27	6	10	2	5	23
Rape	7	184	2	36	229	8	184	1	54	247
Rape, attempted	4	132	3	47	186	5	116	—	43	164
Carnal connexion with females under the age of consent	19	86	9	54	168	33	88	5	56	182
Sodomy	7	51	—	17	75	3	38	—	5	46
Arson	7	71	3	2	83	10	73	2	6	91
Extortion	9	12	3	1	25	6	19	1	1	27
Forgery	71	286	12	43	412	93	292	8	48	441
Receiving stolen property	22	79	14	40	155	31	114	18	47	210
Theft—										
Motor and cycle	129	283	10	68	490	126	325	11	93	555
Common (exceeding £50 in value)	75	62	5	16	158	60	73	6	13	152
By conversion and embezzlement	163	225	6	106	500	151	212	14	105	482
By fraud and false pretences	266	312	36	107	721	301	399	37	93	830
Housebreaking by day	111	528	12	265	916	127	771	16	379	1,293
Housebreaking by night	214	1,376	38	691	2,319	163	1,596	37	750	2,546
Pocket-picking	11	139	10	7	167	4	103	6	9	122
Produce, skins, and feathers	13	87	—	20	120	25	120	—	36	181
Stock	151	2,969	7	811	3,938	205	4,593	28	1,101	5,927
By violence (robbery)	14	202	11	74	301	21	217	8	93	339
Diamond Laws	150	26	7	5	188	121	28	5	10	164
Liquor law—Whites selling to natives	429	—	—	—	429	633	—	—	—	633
Buying, selling, and possession of gold	27	63	7	2	99	22	75	15	4	116
TOTAL	2,617	13,276	271	3,156	19,320	2,473	16,581	343	3,808	23,205

(v) *Stock Thefts.*—The convictions for stock theft amounted to 25 per cent. of the total convictions for serious crime. The thefts of small stock (sheep, goats, pigs, poultry, and domesticated game) accounted for 86 per cent. of the total convictions for this class of offence. Of the persons convicted for stock theft, 3 per cent. were Europeans.

(vi) *Liquor Law.*—The convictions for offences under this head (53,860) amounted to 14 per cent. of the total convictions. The various offences under liquor laws were distributed in the following percentage proportions of the total convictions under that head :—

Offence.	European.	Non-European
	%	%
Drunkenness	8·79	39·39
Possession of kaffir beer	—	41·68
Possession of other liquor	—	6·36
Europeans selling to natives	1·18	—
Coloured selling to coloured	—	1·42
Other offences (Liquor Laws)	0·34	0·84

(vii) *Immorality Laws.*—The convictions for offences under these laws (405) represented 0·11 per cent. of the total. The convictions were under the following heads :—

Offence.	European.	Non-European.
Keeping a brothel	11	27
Living on proceeds	4	7
Procuring	—	4
Soliciting	60	236
Other offences	15	41

(viii) *Nationality and Birthplaces of Europeans Charged.*—90 per cent. of Europeans charged with various offences in 1924 were British born, 4 per cent. were naturalized British subjects, 3 per cent. were Russians, and 0·3 per cent. Germans. Of the total number of Europeans charged, 32 per cent. were born in the Cape, 8 per cent. in Natal, 25 per cent. in Transvaal, 8 per cent. in the Orange Free State, 15 per cent. in the British Isles, and 6 per cent. in Russia.

(ix) *Occupations of Offenders (Europeans).*—The occupations of offenders in 1924 are shown hereunder :—

Occupation—	Per cent.
Professional	4·7
Domestic	4·5
Commercial	23·0
Transport and communication	8·9
Industry	12·6
Primary producers, agriculture	22·3
Primary producers, mining	7·1
Independent	0·3
Dependent	—
Unspecified	16·6

(x) *Juvenile Crime.*—European juveniles, aged 16 years and under, were prosecuted for 76 different kinds of offence during the year, to the number of 1,376. The following were the predominant offences involved :—

Nature of Offence—	Per cent.
Municipal offences	23·0
Theft (common)	22·4
Assault (common)	5·9
Housebreaking by night	4·5
Housebreaking by day	5·7
Police offences	5·2
Railway and Harbours Act	3·1
Malicious injury to property	4·6
Motor Ordinances	2·2
Theft, bicycle	1·7
Cruelty to animals	1·5

Small numbers were charged with serious offences, as follows :—Murder, 1 ; indecent assault, 1 ; bestiality, 1 ; forgery, 4 ; bicycle theft, 23 ; theft by conversion, 3 ; theft by fraud, 6 ; stock theft, 12 ; selling liquor, 5.

The percentage of juveniles convicted (including bail estreated cases) was 77, and discharged 13. 10 per cent. of the cases were withdrawn. The sentences imposed are shown by the following percentages of the total convictions :—Imprisonment with option of a fine, 9 ; cautioned or reprimanded and discharged, 26 ; corporal punishment, 21 ; sent to reformatory or industrial school, 4; fined only, 12 ; other order of court, 3 ; suspended sentences, 2.

(xi) *Suspended Sentences (European).*—The number of suspended sentences imposed during the year 1924 was as follows :—

Up to and including 6 months.....	1,369
Over 6 months and up to and including 12 months.....	11
Over 12 months.....	1

§ 8. Prisons.

1. **Prison System.**—The guiding principles of the Union penal system are to rescue the child from criminal environment and prevent it from becoming a criminal ; to build up and supplement in the criminal the elements necessary to prevent a recurrence of crime ; and, if all else fails, by means of the indeterminate sentence to remove the habitual criminal from society and prevent his remaining a menace to it ; but even then to allow him an opportunity of self-redemption. It seeks to attain these objects through the instrumentality of Government industrial schools for waif and stray children, of reformatories for children who have committed crime, and of various penal institutions for adults and by classification and division within such institutions. The factors making for reformation operating in the prison are religious and moral influences, schooling, drill and discipline, the training of the hand and the eye, and sound literature. A simple system of marks records the progress or retrogression of the prisoner. The Prison Visitors' Boards, on which the judicial, the medical, and the prison administrations are represented in addition to the body of citizens, determine the period when the prisoner may with safety be allowed back into the ranks of society by keeping in constant touch with him personally and by following his conduct reports. They commend him when he improves and exhort him when he lapses. The South African Prisoners' Aid Association [see Chapter VIII] also keeps in touch particularly with the European prisoner, preserves the bond with his family, prepares the way for his return to society and stands by him in the difficult days after his discharge from prison when after long restraint he regains his liberty. To make the release not too sudden the Prison Farm has been introduced, where gradually the prisoner gets back to the conditions of outside life. Among preventive influences there is the suspended sentence, and there is also the Probation Officer, who stands by the sentenced man and helps him to redeem the promises made by him to the Courts. Again as regards the native the Road Camp has been created, so that for venal offences against the Pass Law, the Tax Law, or the Masters and Servants Law he goes direct from Court to camp and never actually enters a gaol. Gradually the features and methods of penal systems of the past are being abandoned. Single cells are coming more and more to the fore. The detention of Europeans and natives in the same wards is now forbidden. The guarding of European prisoners by coloured warders has been discontinued. The indiscriminate locking up of witnesses for months in gaol lest they might disappear is no longer resorted to. The practice of restraining lunatics in prison has been resolutely discountenanced, and under Section 14 of the *Prisons Act* lunatics now go to proper hospitals, while the pauper sick are dealt with similarly. The treadmills and stocks of the old system have become a thing of the past. Night schools for adults, popular science books in place of unedifying literature, and an occasional lecture on an elevating subject have now found a permanent place in the prison system.

2. **Prison Labour.**—Profitless labour such as oakum picking is now unknown, and its place has been taken by creative arts and trades. At the prisons excellent mats are now made from the discarded sheath leaf of the mealiecob, replacing the coir mats imported from India. Manilla rope of sisal fibre grown on the prison farms has been turned out by the thousand yards. Prison building on a large scale is undertaken. Blankets are woven from South African wool. Buttons are turned by machinery out of discarded bone and the remnants ground into bone dust fertilizer by the prisoners. Baskets and basket chairs are made from prison-grown osier and rush. Uniforms and boots are made in large quantities, and all brushes and brooms required by Government departments in the Union are produced by the prisoners, including the carpet broom made from broom corn grown on the prison farms. Prison labour also is responsible for furniture of South African hardwood for Government offices, and for polished desks for the reformatory schools.

3. **Penal Legislation.**—These measures have been made possible by the *Prisons Act*, No. 13 of 1911, which incorporated the chief features of the Transvaal laws and especially of Act No. 38 of 1909, which was the first legislation to break ground on modern penological lines. With the *Prisons Act* must be read the *Indeterminate Sentence Law*—Act No. 9 of 1911, the Act to keep people out of the gaol, Law No. 40 of 1914, and the *Children's Protection Act*, No. 25 of 1913 (the administration of which has now been passed to the Union Education Department). Act No. 46 of 1920 gives Government recognition and assistance to certified hostels for the reception of lads who would otherwise be committed to penal institutions.

Prominent provisions of the Act designed to keep people out of gaol are that no one may be sentenced to less than four days' imprisonment, and no witness may be detained in gaol except on the express application of the Attorney-General. For a trifling offence the accused can deposit the maximum fine with the police, from which, if he is found guilty, his fine is deducted, any balance of his deposit being refunded. In a serious matter the Court may, if it finds him guilty, reprimand him or postpone the passing of sentence, suspend the operation of the sentence, obtain the fine out of the offender's wages, allow him to pay by instalments, or permit him to give sureties.

4. **Training and Instruction.**—In prison life the position of a warder is an important one, and a warders' training school has been established at the Central Prison at which the main principles of the proper treatment of prisoners are taught.

Instruction is given in matters of drill and discipline, and there is a thorough grounding in prison practice and regulations. The Prison Medical Officer deals with self-aid in accidents and with thrift, and an advocate of the Supreme Court teaches the elementary doctrines of criminal and penal law.

5. **The Indeterminate Sentence: Nature and Working.**—The *Transvaal Criminal Law Amendment Act* No. 38 of 1909, which came into force on the 1st of October of that year, first empowered Superior Courts to declare as *habitual criminals* all those who might be three times convicted of certain scheduled offences. Such convicted persons were to be detained at hard labour during the Governor's pleasure and were not to be released until the Board of Visitors, whose creation was also provided for in the Act, should have reported to the Governor: (*a*) that there was a reasonable probability that the habitual criminal would in future abstain from crime and lead a useful and industrious life; or (*b*) that he was no longer capable of engaging in crime; or (*c*) that for any other reason it was desirable to release him. Upon receipt of such a report the Governor was empowered to order the release of the habitual criminal unconditionally or on probation on such conditions as to supervision or otherwise as might be determined. A person who failed to observe any condition of release could be re-arrested and re-committed to prison and detained there as though he had not been released. If the person released on probation completed the period without breaking any condition of his release he would no longer be deemed to be an habitual criminal; but there was nothing to prevent his being again declared an habitual criminal if he appeared before a Superior Court for a further crime.

The provisions of this law were extended to the Union by Act No. 9 of 1911, in force from 28th April, 1911, and by the *Prisons Act*, No. 13 of 1911, in force from 1st October, 1911. The provisions of Act No. 9 of 1911 were re-enacted by Section 344 of the *Criminal Procedure and Evidence Act*, No. 31 of 1917.

The scheduled offences whereof a third conviction renders the offender liable to be declared an habitual criminal, include the following:—(i) Rape or any statutory offence of a sexual nature against a girl of or under a prescribed age; (ii) robbery; (iii) assault with intent to commit murder, rape or robbery, or to do grievous bodily harm or indecent assault; (iv) arson; (v) fraud; (vi) forgery or uttering; (vii) offences relating to the coinage; (viii) breaking into or entering premises with intent to commit an offence; (ix) theft; (x) receiving stolen property; (xi) extortion or threats by letter or otherwise with intent to extort; (xii) offences described in any law for the suppression of brothels and the punishment of immorality; (xiii) illicit dealing in or possession of precious metals or precious stones; (xiv) illicit liquor supplying to natives or coloured persons; (xv) any conspiracy, incitement or attempt to commit any of the above-mentioned offences.

Each habitual criminal has a personal interview with the Board once a year when he has an opportunity of making any representations he wishes and the Board is enabled to question him and observe his demeanour. Each habitual criminal is also seen once a year by the Director of Prisons. On a consideration of the various factors the Board can decide whether the time is ripe for recommending that the convict be given a chance to prove whether he can be safely trusted again amongst his fellowmen. The Board ascertains in what locality the convict is most likely to make good and on release he is transported to that locality and reports to the local Probation Officer who renders such assistance as may be necessary in placing him in steady employment. Before release is actually effected the convict has been tried for a period in prison under conditions approximating to freedom. It is found that some men break down even under this relaxation and prove their unfitness for final release.

The first indeterminate sentences were passed in 1910, when 2 European males and 27 native males were declared habitual criminals. In 1920 the record number of such sentences was passed, 20 Europeans, 154 native males and 1 native female being declared habitual criminals.

The number of indeterminate sentences passed up to the end of 1924 was: European males, 127; native and coloured males, 1,338; native and coloured females, 14; Asiatic males, 16; a total of 1,495. Up to the end of that year no European or Asiatic females had received the indeterminate sentence. As no European male sentenced later than 1922 had been released up to the end of 1924, it is necessary, in order to see what results have been achieved, to deduct from the total the number sentenced during that period. One hundred and one European males were declared habitual criminals between 1910 and 1922, of whom 4 died and 3 were removed to a mental hospital, leaving 94 cases to be considered. Of these, 46 have been released on probation and 1 was unconditionally released on medical grounds. Five of the 46 relapsed and were returned to prison during the probationary period, and 1 released in 1915 was redeclared an habitual criminal in 1919. The failures, therefore, were 6 out of 46, or say 13 per cent. Three men released were deported and it is possible that some others have left the country. One man sentenced in 1910 and released in 1913 on two years' probation relapsed after seven months of liberty. After serving a further seven years, he was given another chance, being released in 1922 on four years' probation. After nine months he had to be returned to prison for a breach of his probationary conditions. This is the only European who has been twice released.

No native or coloured female sentenced later than 1919 has been released. Of the 5 sentenced between 1911 and 1919, 1 died and 3 were released on probation, 1 in 1916, 1 in 1921, and 1 in 1924. None of these has relapsed.

The results in regard to Asiatic males have been most disappointing. Of the 16 sentenced during 1911 to 1924, 1 died, 9 were released, viz., 7 on probation and 2 for deportation, and 3 were removed to a mental hospital. The seven who were released on probation in 1918 all relapsed; two within 7 months, and the other five in 7½, 14, 18, 18, and 20 months respectively. Four of these were released again in 1922 and deported. The two who were unconditionally released for deportation in 1922 and 1923 respectively had been sentenced in 1916 and 1919.

No native or coloured male sentenced since 1919 had been released up to the end of December, 1924. Of the 684 sentenced from 1910 to 1919, 84 died in custody, 31 were transferred to mental hospitals, 1 was removed to a leper institution, and 2 were removed from the class, leaving 566 cases for consideration. Of these 566 cases, 269, or 47 per cent., have been released on probation, 71 have relapsed during their probationary periods, and 19 have been redeclared habitual criminals after safely passing through their probation. The failures, therefore, amount to 90 out of 269 cases, or 33 per cent.

Two men sentenced in 1910 and released in 1914, after nearly four years relapsed and returned to prison. After over seven years' further detention, these two men were released again in 1921, and one of them relapsed again after nine months' freedom. The second man is still at liberty.

6. **Statistics.**—The subjoined tables give statistics in regard to penal establishments in the Union, sentenced offenders, juvenile offenders, paupers, mental defectives, and debtors admitted to prisons or held in custody for a period of years, and an analysis of convictions obtained in 1924. Particulars for earlier years and for intermediate years, where averages only are given, will be found in the sixth and previous issues of this *Year Book*. The concluding table shows the average number of hard labour units employed daily during the year 1924:—

(i) PENAL ESTABLISHMENTS, FROM 1921.

Year.	Convict Prisons.	Gaols.	Reformatories.	Road Camps.	Farm Colonies and Inebriate Reformatories.	Labour Out-stations.	Prison Farms.	Total.
1921.....	9	183	7	3	2	8	2	214
1922.....	9	184	8	3	2	4	1	211
1923.....	11	177	7	3	2	6	2	208
1924.....	10*	177	7	3	3	5	2	207

* Including one hospital prison in the Cape.

(ii) SENTENCED OFFENDERS ADMITTED TO PRISONS,* FROM 1912.

YEAR.	European.		Other.		All Sentenced Prisoners.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1912	5,463	339	80,376	9,644	85,839	9,983	95,882
1913–1917 (Av.)....	4,151	390	76,665	9,711	80,816	10,101	90,917
1918–1922 (Av.)....	3,303	294	74,823	9,646	78,126	9,940	88,066
1923.....	3,696	346	88,029	11,048	91,725	11,394	103,119
1924.....	3,558	307	96,800	12,070	100,358	12,377	112,735

* Excluding Lock-ups.

(iii) DAILY AVERAGES OF PRISONERS,* FROM 1911.

Year.	European.		Other.		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1911.....	1,286·2	52·8	11,386·0	830·1	12,672·2	882·9	13,555·1
1917.....	1,189·6	120·0	13,477·8	1,091·5	14,667·4	1,211·5	15,878·9
1922.....	1,675·9	88·4	14,429·4	1,058·4	16,105·3	1,146·8	17,252·1
1923.....	1,287·9	91·9	14,758·9	1,080·2	16,046·8	1,172·1	17,218·9
1924.....	1,299·9	85·9	15,574·0	1,142·4	16,873·9	1,228·3	18,102·2

* Includes prisoners awaiting trial, civil debtors, etc.

(iv) OFFENDERS ADMITTED TO PRISONS, SHOWING SENTENCES, 1924.

Sentence.	European.		Other.		All Sentenced Prisoners.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
Condemned to death.....	3	—	57	5	60	5	65
Life.....	—	—	—	—	—	—	—
Indeterminate sentence.....	10	—	149	2	159	2	161
Governor-General's pleasure.....	5	3	12	1	17	4	21
10 years and over.....	—	—	16	1	16	1	17
5 years and under 10 years.....	13	1	100	7	113	8	121
Over 2 years and under 5 years...	146	2	903	28	1,049	30	1,079
6 months and up to and including 2 years.....	692	66	6,292	388	6,984	454	7,438
3 months and under 6 months....	357	29	8,199	826	8,556	855	9,411
Over 1 month and under 3 months	375	34	14,270	1,962	14,645	1,996	16,641
Corporal punishment only—							
(i) Cat.....	—	—	18	—	18	—	18
(ii) Cane.....	13	—	730	—	743	—	743
7 days and up to and including 1 month.....	1,780	165	62,842	8,575	64,622	8,740	73,362
Under 7 days.....	164	7	3,212	275	3,376	282	3,658
TOTAL.....	3,558	307	96,800	12,070	100,358	12,377	112,735

(v) DEATHS AND EXECUTIONS IN PRISON, FROM 1911.

Year.	Total Number of Deaths.	* Execution.		Killed while Escaping.	Accidents.	Suicides.	Deaths from Assaults.	Deaths from Other and Natural Causes.
		European.	Other.					
1911–15 (Av.).	206	1	31	1	4	1	1	167
1916–20 (Av.).	411	1	25	1	4	2	1	377
1921...	325	2	23	—	5	1	—	294
1922...	250	4	9	—	3	—	—	234
1923...	253	3	25	—	5	—	—	220
1924...	293	2	15	2	—	—	—	274

* Male unless otherwise stated.

(vi) FIRST AND SUBSEQUENT CONVICTIONS, 1924.

Description.	European.		Other.		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
First conviction....	2,128	194	77,308	9,142	79,436	9,336	88,772
Second conviction..	353	24	7,466	1,014	7,819	1,038	8,857
Third conviction....	345	23	4,355	571	4,700	594	5,294
Fourth conviction..	249	21	2,794	378	3,043	399	3,442
Over four convictions.	483	45	4,877	965	5,360	1,010	6,370
TOTAL.....	3,558	307	96,800	12,070	100,358	12,377	112,735

(vii) JUVENILE OFFENDERS* ADMITTED INTO PRISONS, FROM 1911.

Year.	Number under 21 Years of Age.	European.		Other.	
		Male.	Female.	Male.	Female.
1911–15 (Av.).....	13,330	514	34	10,904	1,878
1916–20 (Av.).....	12,657	300	36	10,378	1,943
1921.....	13,432	321	26	10,883	2,202
1922.....	13,522	506	42	10,700	2,274
1923.....	15,241	362	34	12,239	2,606
1924.....	17,014	383	30	13,893	2,708

* Excluding those confined in reformatories.

(viii) PAUPERS DEALT WITH IN PRISON INSTITUTIONS, FROM 1911.

Year.	European.		Other.		Prisoners' Children.	Total.
	Male.	Female.	Male.	Female.		
1911–15 (Av.)....	87	3	159	51	386	686
1916–20 (Av.)....	12	1	51	8	473	545
1921.....	8	—	18	3	535	564
1922.....	8	1	15	2	641	667
1923.....	9	—	17	1	684	711
1924.....	10	—	16	10	617	653

(ix) MENTAL PATIENTS DEALT WITH IN PRISON INSTITUTIONS, FROM 1911.

Year.	European.		Other.		Total.
	Male.	Female.	Male.	Female.	
1911–15 (Av.).....	70	12	280	72	434
1916–20 (Av.).....	23	3	118	39	183
1921.....	8	4	96	37	145
1922.....	12	3	100	31	146
1923.....	16	2	98	31	147
1924.....	10	1	91	27	129

(x) CIVIL DEBTORS DEALT WITH IN PRISON INSTITUTIONS, FROM 1911.

Year.	European.		Other.		Total.
	Male.	Female.	Male.	Female.	
1911–15 (Av.).....	319	5	472	6	802
1916–20 (Av.).....	212	2	399	7	620
1921.....	541	5	493	14	1,053
1922.....	638	12	658	13	1,321
1923.....	837	16	594	11	1,458
1924.....	805	22	592	4	1,423

(xi) AVERAGE NUMBER OF PRISONS HARD LABOUR UNITS EMPLOYED DAILY, 1924.

Heading.	Daily Average.	Heading.	Daily Average.
	No.		No.
Employed for Prisons Department	4,779	Employed for others—	
Employed for Government Departments—		Gratis.....	537
Gratis.....	1,547	For remuneration.....	3,035
For remuneration.....	1,788	*Not employed (ineffective).....	4,282

* Owing to sickness, rain, Sundays, Public Holidays, etc.

NOTE.—The amount earned by prisons hard labour units during the year was £126,172.

7. **Administration of Prisons.**—The administration of the prisons of the Union is placed under the Director of Prisons in the Department of Justice. Particulars as to the cost of administration are contained in Chapter XXII.

§ 9. Miscellaneous.

1. **Trial of Children and Juveniles.**—A child under sixteen charged with an offence cannot without the authority of the Minister of Education be detained in any prison, gaol, or lock-up while awaiting trial unless there is no other accommodation available; such child, if its detention is necessary, must be kept in a place specially approved and detained by a temporary custodian approved by a magistrate. A policeman above the rank of sergeant may, unless the offence charged is a serious one, release the child from custody on bail. These provisions also apply to convicted children awaiting admission to reformatories and certified hostels and awaiting apprenticeship.

When any person who is apparently under twenty-one years of age is charged with an offence, any judge or magistrate on application to him *in camera* may order such person while awaiting trial, verdict, or sentence to be detained in a certified hostel instead of in prison.

Section 5 of the *Magistrates' Courts Act* (No. 32 of 1917) enacts that the trial of any child who is, in the opinion of the court, less than sixteen years of age, may be held *in camera* in some place other than an ordinary court room. In such cases the parent or guardian of the child has the right to be present, but no person (other than the members and officers of the court and other persons directly concerned) may be present except by leave of the court.

In some of the larger urban centres the same magistrate deals with all cases against children.

The *Childrens' Protection Act* (No. 25 of 1913) provides that in addition and without prejudice to the court's power to hear proceedings *in camera*, the court may, if a child is called as a *witness* in any criminal case or in proceedings under that Act, direct that all or any persons, except those directly concerned in the case be excluded from the court during the taking of the evidence of the child.

2. **Punishments for Juvenile Crime.**—(i) *General.*—A child of an age when in law it can commit a criminal offence can be sentenced to imprisonment or detention in a reformatory or certified hostel, or fine, or whipping. In view, however, of the provision which has been made for the detention of children in reformatories and certified hostels, it is rarely necessary to sentence a child to detention in a prison. In the case of a child convicted of murder a Superior Court may refuse to pass sentence of death and pass some other sentence.

(ii) *Reformatories.*—The Government is authorized to establish reformatories (which include training ships) for the custody of juvenile offenders and juvenile adults. A *juvenile* is generally speaking a person under sixteen years of age and, if the Minister approves, a person under eighteen years who has been sentenced to imprisonment. A *juvenile-adult* is a person who is between the ages of sixteen and twenty-one and may include a person between twenty-one and twenty-five. The head of a reformatory is called a warden. He possesses the powers of a parent for disciplinary purposes.

Any superior or magistrate's court may order the detention in a reformatory of a juvenile or juvenile-adult in lieu of detention in prison.

Juveniles may be detained for not less than two and not more than five years. The period of such juvenile's detention must, however, expire when he reaches the age of eighteen years. The court is further empowered to order that at the expiry of the sentence of detention in a reformatory the juvenile be apprenticed until he attains the age of eighteen, and the magistrate of any district in which a reformatory is situated may apprentice a juvenile detained in that reformatory until he reaches the age of eighteen. Apprentices who abscond or misbehave may be returned to a reformatory.

Juvenile-adults may be detained in a juvenile-adult reformatory for a period of not less than two and not more than five years.

The Minister of Justice may order the removal to a juvenile reformatory of any child of sixteen who is undergoing imprisonment in a gaol or may order such child to be apprenticed until he is eighteen or until his sentence expires. Juveniles may be punished for offences committed whilst detained in a reformatory.

(iii) *Certified Hostels.*—In addition to prisons and reformatories, there is another class of institution, viz., the certified hostel for the detention of juveniles. These are semi-private institutions licensed by the Minister of Justice as places to which young persons under twenty-one years of age convicted of any offence except murder, may be committed for not less than two or more than five years. A court may pass sentence of *imprisonment*, but order the operation of the sentence to be suspended for not less than two or more than five years on condition that the offender lives in a certified hostel and is of good conduct. The management of a certified hostel may refuse to accept persons committed to it. Juveniles or juvenile-adults may be discharged from a reformatory on condition that they reside in a certified hostel and are of good conduct. Children may, under certain circumstances, be transferred from industrial schools to certified hostels. Persons considered unsuitable for detention in a certified hostel may be removed to a reformatory.

A court may order the parent, step-parent, or guardian of a child committed to a hostel to contribute towards such child's maintenance therein.

(iv) *Whipping.*—Male children under sixteen years of age may be sentenced to whipping. Such sentence must, however, be a substitute for any other punishment. It must be inflicted in private and must not exceed fifteen cuts, which are inflicted in such place and with such instrument as the court appoints. The parent or guardian has the right to be present. Male children over sixteen years of age may be sentenced to receive not more than fifteen cuts in addition to, or in substitution for, any punishment to which the offender is otherwise liable. The whipping of females is prohibited.

3. **Suspended Sentences.**—(i) *Minor Offences.*—If any person is convicted of :—

(*a*) contravening a statutory by-law made by a local authority or a statute or statutory regulation; or

(*b*) any other offence in respect of which the court would not have imposed a fine exceeding £5, or in default of payment, sentenced the offender to imprisonment for a period exceeding one month—

the court may, subject to such conditions as it may impose :—

(*a*) postpone for a period not exceeding one month the passing of sentence and release the offender under recognizances to appear at the end of that period;

(*b*) pass sentence, but order the operation thereof to be suspended for a period not exceeding one month on conditions;

(*c*) order payment of the fine, but suspend the enforcement thereof if the offender enters into recognizances to pay within one month either in one sum or in instalments.

If the conditions of any order made or recognizances entered into are not fulfilled, the offender may be arrested without warrant and committed to prison to serve any alternative sentence of imprisonment.

(ii) *Serious Offences.*—If any person is convicted of :—

Any offence (except public violence, murder, culpable homicide, rape, assault with intent, indecent assault, robbery, forgery and uttering, fraudulent insolvency, offences relating to coinage, any offence in respect of which a minimum punishment is by law imposed and any conspiracy, incitement or attempt to commit any of the above offences) and no previous conviction for any offence whatever—other than the contravention of a statutory by-law made by a local authority or a statute or statutory regulation, in respect of which the maximum fine is £5 or in default of payment of the fine, imprisonment—is alleged or proved against the offender—

the court may, subject to such conditions as it may impose :—

(*a*) postpone for a period not exceeding six months the passing of sentence and release the offender on recognizances to appear at the expiration of that period ;

(*b*) pass sentence, but order the operation thereof to be suspended for a period not exceeding three years ;

(*c*) pass sentence, of a fine or in default of payment, imprisonment, but suspend the issue of a warrant of committal in default of payment for not more than twelve months in order to give the offender an opportunity of paying the fine either in one sum or in instalments.

If at the end of period for which sentence has been postponed under (*a*) the offender has complied with the conditions the Court may discharge him without passing sentence.

If during the period of suspension the offender has observed the conditions under (*b*) the sentence is not enforced.

If the conditions of suspension or postponement are not fulfilled the offender may be arrested and made to undergo the sentence which has been or may be imposed.

4. **Probation Officers.**—Whenever a court considers that the care or supervision of a probation officer may benefit an offender (or his dependents) whose sentence has been postponed or suspended, the Court may entrust the offender to the care of such probation officer during the period the sentence is postponed or suspended.

An offender placed under the care of a probation officer must observe the conditions imposed, which usually include, *inter alia*, periodical reports to probation officer ; residence within certain fixed limits ; notification of change of address ; not entering bars, etc., and abstaining from liquor ; not associating with persons of bad character ; good conduct and honest work ; submission to advice and guidance of probation officer.

On report of the probation officer the court may relax or vary any conditions imposed.

Probation officers are under the instructions of the Minister of Justice and the court of the area for which they are appointed. *Inter alia*, their duties are :—

(*a*) To visit, watch over and act as the best friend of the persons entrusted to their care and to see that such persons comply with the conditions imposed by the Court ;

(*b*) to investigate breaches of conditions and to furnish reports thereon to the courts etc., concerned ;

(*c*) where an order to that effect has been made, or where the offender has agreed thereto, to receive the latter's wages and utilize the same for the benefit of the offender or his family.

Full-time probation officers have been appointed in Johannesburg, Cape Town, and Pretoria and a part-time officer at Durban. The Minister may appoint officers of the Prisoner's Aid Association or Children's Aid Society as probation officers. At centres where no such officers have been appointed the services of members of the Police Force or officials of the Native Affairs Department may be utilized as probation officers.

CHAPTER X.

POLICE AND PROTECTION.

§ 1. Development of the Union Police Organization.

1. **Organization of the Police Force before 1910.**—Earlier issues of this *Year Book* contained an historical account of the development of the South African Police Forces up to the date of the constitution of the Union, and also statistics showing the strength of the various units at that date. These have not been repeated owing to exigencies of space.

2. **Organization of the Police Force after 1910.**—On the amalgamation of the Police Forces of the Union and the formation of the Permanent Force (South African Mounted Rifles) on 1st April, 1913, the latter force was made responsible for the policing of the Northern Transvaal, the Natal Province (with the exception of the Durban Water Police patrol area), the districts in the Orange Free State on the Basutoland border, the Transkeian native territories with the districts of King William's Town, Komgha, Aliwal North, Barkly East, and Herschel, and the north-western portion of the Cape Province; the remainder of the Union being administered by the South African Police. When War broke out in August, 1914, the South African Mounted Rifles were mobilized for active service, and the policing of the areas assigned to that force devolved on the South African Police, by whom it was continued until peace was proclaimed. The South African Mounted Rifles then took over their normal work and districts, with the exception of those in the Northern Transvaal, Orange Free State, and the Transkei, including King William's Town, Komgha, Aliwal North, Barkly East, and Herschel, which remained under South African Police administration. The fact that during peace time the work performed by both Forces is identical, led the Government to determine that from the point of view of both economy and efficiency, it would be better to convert the two Forces into one Police Force and thus do away with dual administration. This, it was considered, would result in more uniform organization. Accordingly, on 1st April, 1920, the Permanent Force (South African Mounted Rifles) was absorbed and attached to the South African Police, who again assumed responsibility for the policing of the whole of the Union. In order that adequate police protection should be afforded to the areas formerly patrolled by the South African Mounted Rifles, as many members of that Force as possible were accepted for service in the South African Police, and twenty-six officers, 196 non-commissioned officers, 1,022 constables, and 2,287 native police have been so absorbed.

3. **Number of Police in Provinces and Divisions.**—The allocation of police to the various Provinces is indicated in the subjoined table (i), and in table (ii) is given an analysis of the European section of the South African Police Force on the 31st December, 1924; Table (iii) shows the strength of the South African Police Force on the 31st December in each year after 1911:—

(i) **SOUTH AFRICAN POLICE—STRENGTH ON 31st DECEMBER, 1924.**

Province.	European.	Non-European.	Total.
Cape of Good Hope	2,710	977	3,687
Natal	574	1,240	1,814
Transvaal	2,080	1,378	3,458
Orange Free State	538	252	790
Depot	294	13	307
S.A.C. Bureau	58	1	59
Headquarters	161	18	179
TOTAL	6,415	3,879	10,294

(ii) SOUTH AFRICAN POLICE—EUROPEAN STRENGTH ON 31st DECEMBER, 1924.

Province and Division.	Officers.	Head Constables.	N.C.O.'s.	Constables.	Detectives.	Total.
Cape of Good Hope—						
Western Division	23	17	136	859	92	1,127
Eastern Division	25	9	112	767	55	968
Transkei Division	9	4	37	193	20	263
Kimberley Division	13	3	48	259	29	352
Total—Cape of Good Hope	70	33	333	2,078	196	2,710
Orange Free State	14	9	72	413	30	538
Natal	20	6	83	417	48	574
Transvaal (except Witwatersrand)	18	10	99	670	47	844
Witwatersrand	18	24	130	861	203	1,236
Depot	2	3	24	265	—	294
S.A.C. Bureau	1	—	—	8	49	58
Headquarters	13	7	40	94	7	161
GRAND TOTAL	156	92	781	4,806	580	6,415

(iii) SOUTH AFRICAN POLICE—TOTAL STRENGTH ON 31st DECEMBER, 1911 TO 1924.

Year.	European.	Native, Coloured, and Indian.	Total.	Year.	European.	Native, Coloured, and Indian.	Total.
1911	5,507	2,871	8,378	1918	5,284	2,298	7,582
1912	5,617	2,807	8,424	1919	5,112	2,417	7,529
1913*	4,473	1,465	5,938	1920	6,352	3,678	10,030†
1914	4,776	1,329	6,105	1921	6,338	3,791	10,129†
1915	4,998	1,573	6,571	1922	6,201	3,743	9,944
1916	5,328	2,244	7,572	1923	6,220	3,845	10,065
1917	5,543	2,359	7,902	1924	6,415	3,879	10,294

* A portion of the Union was allotted to the South African Mounted Riflemen for policing as from 1st March, 1913.
† Including South African Mounted Riflemen.

4. **Duties of the Police.**—In addition to the duties ordinarily appertaining to a police force, the South African Police are constantly required to undertake inquiries on behalf of various Government Departments, including inquiries in respect of missing persons, the naturalization of aliens, and prohibited immigration. Its members undertake criminal prosecutions (as public prosecutors) in almost all of the rural areas of the Union. They act as messengers of the court, excise officers, immigration officers, gaolers and lock-up keepers, revenue officers, polling officers, assist in the compilation of voters' rolls, the registration of births and deaths, serve as lay (health) inspectors, inspectors of vehicles, inspectors of licences, assizers of weights and measures, post agents, pass issuers, hut and other tax collectors, health officers, compilers of jury lists, escorts for lunatics, lepers, etc., meteorological observers, enumerators of statistics, and perform various other duties which are extraneous to police duty proper.

The following table, showing numerically for a series of years the cases in which the intervention of the police was called for, indicates to some extent the variety of the work performed by the Force :—

Description of Circumstances Calling for Police Intervention.	Number of Cases.			
	1921.	1922.	1923.	1924.
Cases reported to the police	367,477	378,860	428,403	459,585
Persons arrested	335,301	346,268	390,086	420,170
Persons convicted	249,260	300,129	340,572	369,535
Persons deported to other countries	80	78	32	67
Persons extradited from other countries	14	7	19	20
Miscellaneous inquiries made, not involving the arrest of persons	121,186	118,630	138,663	138,592
Persons reported missing	2,727	1,453	2,602	2,821
Persons found by the police	1,754	1,007	1,422	2,124
Deaths in which police inquiries were made	3,786	3,384	3,732	3,471
Suicides	293	263	350	366
Fires at which police rendered assistance	647	688	790	625
Persons found on arrest, by fingerprints, etc., to be old offenders	24,836	20,069	26,857	26,447
Escapes from police custody	721	507	743	731
Street accidents in which persons were injured	3,267	3,018	2,590	3,037
Persons taken to hospital by police	1,792	1,515	2,074	2,062
Doors and windows found open by police	4,206	3,848	4,945	5,015

5. **Recruiting and Losses.**—The subjoined table gives particulars as to recruiting for the police force and as to losses from the force :—

RECRUITING AND LOSSES OF POLICE FORCE FROM 1913-14 (EUROPEANS).

Financial Year.	Recruiting.	Losses.	Financial Year.	Recruiting.	Losses.
1913-14	801	461	1919-20	421	386
1914-15	650	504	1920-21	604	473
1915-16	834	796*	1921-22	289	500
1916-17	640	360	1922-23	563	522
1917-18	492	397	1923-24	645	469
1918-19	353	576	TOTAL	6,292	5,444

* The larger number during this year was due to members taking their discharge either by purchase or as time-expired in order to proceed on active service : 183 officers, non-commissioned officers, and men actually left in this manner.

6. **Scales of Pay.**—The following table gives details of the scales of pay and allowances in operation in the South African Police Forces :—

SCALES OF PAY AND ALLOWANCES—SOUTH AFRICAN POLICE FORCE.

Rank.	Pay and Allowances.*	Rank.	Pay and Allowances.*
Commissioned Officers.			
Commissioner	£1,500–£1,700	Constables, 2nd Class	£140–£210
Deputy-Commissioner (hdqrs.)	£900–£1,100	Recruits on Enrolment †	£120
Deputy-Commissioners	£800–£950		
Divisional and Senior Inspectors*	£650–£750	*Detective Branch.*	
Inspectors*	£500–£600	Detective Head Constable	£380–£440
Sub-Inspectors*	£420–£480	Detective Sergeant, 1st Class	£340–£390
		Detective Sergeant, 2nd Class	£280–£340
Other Ranks.		Detective Constables	£170–£302
Head Constables	£340–£400		
1st Class Sergeants	£300–£350	*Indian, Coloured and Natives.*	
2nd Class Sergeants	£260–£305	Sergeants	£95–£105
Constables, 1st Class	£150–£282	Corporals	£78– £90
		Constables‡	£48– £66

* Long service increments are payable after a certain number of years' service : Inspectors, £50 per annum ; sub-inspectors, £30 per annum.

† Free quarters, but without allowances whilst undergoing training at a police depot.

‡ Indian, coloured, and native constable labourers at rates not exceeding those for Indian, coloured and native constables.

§ 2. Defence System of the Union.

1. **General.**—Since its inception the Union Government has been undertaking gradually the duties connected with the defence of the Union, and on 1st December, 1921, the Imperial Military Command in South Africa was abolished and the responsibility for the coast fortress defences of the Cape Peninsula formally taken over by a Union Commander. The Imperial Government has endowed the Union with a free gift of all its land and buildings in the Union actually required for defence purposes; the conservation of this endowment is provided for in the *Defence Endowment Property and Accounts Act* (No. 33 of 1922).

The Defence system is laid down in the *Defence Act* (No. 13 of 1912, as amended by Act No. 22 of 1922). Under this Act every citizen of European descent is liable between his seventeenth and his sixtieth year (both included) to render in time of war personal service in defence of the country in any part of South Africa within or without the Union. Further, every citizen of sound physique between his seventeenth and his twenty-fifth year (both included) is liable to undergo a course of peace training for four years. All employers are bound by law to afford their employees facilities for training without in any way prejudicing their employment. A minimum of 50 per cent. of those liable for peace training is required annually; others being required in their twenty-first year to enrol as members of rifle associations for the same period of four consecutive years. As an alternative, citizens may enter for service in the South African Division of the Royal Naval Volunteer Reserve. Every other citizen liable to render war service is also allowed to engage as a member of a rifle association if he elects to do so. The liability of non-Europeans to service may be determined by Parliament.

2. **Administration.**—A Council of Defence, a headquarters staff, and instructional and administrative staffs for the fifteen military districts of the Union have been constituted.

The personnel of the Council of Defence (as constituted in July, 1925) is as follows:—

*Major-General Sir H. T. Lukin, K.C.B., C.M.G., D.S.O.
F. A. Conroy, M.L.A.
Brigadier-General J. S. Wylie, D.S.O., M.V.O., V.D.
Captain W. Wilkens.

3. **Military Districts.**—The Union is divided into fifteen military districts, with headquarters of the district staff officers at the places named.

No. 1	Military District,	Cape Town.	No. 9	Military District,	Pretoria.
No. 2	,,	Port Elizabeth.	No. 10	,,	Bloemfontein.
No. 3	,,	East London.	No. 11	,,	
No. 4	,,	Pietermaritzburg.	No. 12	,,	Kimberley.
No. 5	,,		No. 13	,,	
No. 6	,,	Standerton.	No. 14	,,	Worcester.
No. 7	,,	Potchefstroom.	No. 15	,,	Graaff-Reinet.
No. 8	,,	Johannesburg.			

4. **The South African Permanent Force.**—This Force consists of:—

I. The South African Staff Corps.
II. The South African Instructional Corps.
III. The South African Naval Service.
IV. The South African Field Artillery.
V. The 1st Regiment, South African Mounted Riflemen.
VI. The South African Permanent Garrison Artillery.
VII. The South African Engineer Corps.
VIII. The South African Air Force.
IX. The South African Service Corps.
X. The South African Medical Corps.
XI. The South African Ordnance Corps.
XII. The South African Veterinary Corps.
XIII. The South African Administrative, Pay, and Clerical Corps.

5. **The South African Military College.**—This college was organized in 1912 for the training and instruction of officers and other ranks of the Permanent Force, Citizen Force, and Cadets. It was originally stationed at Tempe, but was transferred in recent years to Roberts Heights.

The college consists of three branches—the General Branch, Musketry and Signalling Branches.

6. **The Coast Garrison Force.**—This force consists of the South African Garrison Artillery and Coast Defence Corps. Divisions of the Garrison Artillery are established at

* Died 16th December, 1925; successor, Major R. Ballantine, V.D.

Cape Town and Durban, and men below the age of thirty are eligible for enrolment, and receive liberal payment for attending drills. Citizens liable for peace training may serve their time in this force. During the year ended 30th June, 1925, the First Division of the South African Garrison Artillery—No. 1 Military District—(Cape Garrison Artillery) was accepted for peace training. The Coast Defence Corps consists of men specially trained in harbour work, engineering, signalling, and telegraphy.

7. **The Citizen Force.**—This force consists of all persons liable to render personal service in time of war (other than members of the other forces mentioned) and comprises three divisions, viz., the Active Citizen Force, the Citizen Force Reserve, and the National Reserve.

8. **Registration.**—All citizens of the Union are required to register themselves under the Defence Act during January of the year in which they will reach the age of seventeen. Any person who becomes a citizen between his seventeenth year and his twenty-first year must register himself within ninety days of his becoming a citizen.

Failure to register, constitutes an offence punishable by law.

The position at the 31st March, 1925, in regard to the 1925 registration of citizens, is reflected hereunder.

REGISTRATION, 1925—POSITION AT 31st MARCH, 1925.

Military District No.	Number liable for Registration.	Total Number Registered.	Total Voluntary Entries.		Total Non-Voluntary Registrations.
			Mounted.	Infantry and Dismounted.	
1	1,389	834	7	788	39
2	1,712	941	38	798	105
3	1,045	866	89	721	56
4	554	463	252	173	38
5	736	666	79	564	23
6	948	578	165	354	59
7	1,189	680	80	560	40
8	2,790	1,802	350	1,369	83
9	1,913	1,173	94	901	178
10	1,344	855	311	453	91
11	1,127	817	186	566	65
12	634	258	76	169	13
13	687	392	77	303	12
14	1,258	692	32	620	40
15	1,103	574	78	465	31
TOTAL	18,429	11,591	1,914	8,804	873

9. **The Active Citizen Force.**—This force consists of registered citizens between the ages of seventeen and twenty-five who are undergoing peace training, and citizens with previous military training who have been specially enrolled.

During the training year 1925–26, the following units were accepted for peace training :—

Unit.	Military District No.	Unit.	Military District No.
Cape Garrison Artillery	1	5th Mounted Rifles (I.L.H.)	–
2nd Infantry (D.E.O.R.)	–	8th Infantry (T.S.)	–
6th " (D.C. & S.O.C.H.)	–	10th " (Wit. Rifles)	–
9th " (C.P. Rifles)	–	11th " (R.L.I.)	–
No. 1 Company S.A.M.C.	–	1st Field Ambulance	–
No. 2 Brigade Section (S.A.C.S.)	–	No. 1 Brigade Section (S.A.C.S.)	–
No. 2 Wireless Section (S.A.C.S.)	–	No. 1 Motor Air Line Section (S.A.C.S.)	–
"B" Cable Section (S.A.C.S.)	–	"A" Cable Section (S.A.C.S.)	–
3rd Infantry (P.A.G.)	2	12th Infantry (Pretoria Regiment)	9
19th M.R. (T.M.R.)	3	Corps Headquarters (S.A.C.S.)	–
4th Infantry (1st City)	–	No. 1 Wireless Section (S.A.C.S.)	–
5th Infantry (Kaffrarian Rifles)	–	No. 1 Air Force Section (S.A.C.S.)	–
1st M.B. Field Ambulance	–	No. 3 Wireless Section (S.A.C.S.)	11
1st Mounted Rifles (N.C.)	4	7th Infantry (Kimberley Regiment)	13
2nd " "	–	Brigade Headquarters	Various.
4th " " (U.M.R.)	–	1st Infantry Battalion	
3rd " " (N.M.R.)	5	2nd " "	
1st Infantry (D.L.I.)	–	No. 1 Armoured Train	
2nd Field Ambulance	–	No. 2 " "	
No. 3 Brigade Section (S.A.C.S.)	–	No. 2 Coy., S.A.M.C.	
8th Citizen Battery (T.H.A.)	8		

(Railway and Harbours Brigade)

10. **South African Naval Service.**—The South African Naval Service consists of the following units:—

(i) South African Division, R.N.V.R., which embraces citizens liable for peace training who elect to perform naval service. Companies are established as follows:—A and B Companies based at Cape Town (headquarters, The Castle); C Company at Durban (headquarters, Esplanade, Durban); D Company at Port Elizabeth; E Company at East London.

(ii) two mine-sweeping trawlers, "Foyle" and "Eden" (renamed "Sonneblom" and "Immortelle" respectively).

(iii) one surveying sloop, "Crozier" (renamed "Protea").

These units are administered under the orders of the Commander-in-Chief, Africa Station, by the Commander, S.A. Division, whose headquarters are at Simonstown.

11. **Naval Dockyards (Simonstown).**—The headquarters of the African Naval Station are established at Simonstown, where extensive dockyards (including a large graving dock) have been formed for Admiralty purposes. The buildings belonging to the station provide a full equipment of naval offices, stores, and workshops, and a hospital. The tidal basin has an area of 28¼ acres. The graving dock—known as the Selborne Dock—is 780 feet long, 94 feet wide, and has a depth over sill of 34 feet 5 inches (high water ordinary neap tides).

The dock and dockyard are available, on application to the Captain-in-Charge, Simonstown, for the docking and repairs of merchant ships, provided that the facilities desired are not available at the time elsewhere in Union waters, and that men-of-war have priority.

12. **South African Air Force.**—The South African Air Force is part of the Union Defence Forces, and is administered by the Air Services Section of Defence Headquarters. The Director of Air Services is also the executive commander of the Air Force.

The organization of the force is—

(1) headquarters;

(2) aircraft depot, including stores section, workshops, and reserve aeroplane park;

(3) flying training school, capable of training fifteen to twenty pupils at the same time;

(4) service squadrons, of which one squadron is at present fully established;

(5) special reserve of pilot officers on a numerical establishment of twenty-four special reserve officers to each active aeroplane flight;

(6) general reserve of officers.

The whole of the Permanent Air Force is concentrated at Pretoria, where accommodation has been provided in the shape of steel hangars for approximately eighty aeroplanes. Nearly one hundred landing grounds have been prepared throughout South Africa, and any point in the Union can be reached by air from Pretoria within one day.

13. **The Citizen Force Reserve.**—This force is divided into two classes. Class A consists of men who have undergone peace training in the Active Citizen Force and are not over forty-five years of age. Class B consists of members or past members of Defence Rifle Associations.

14. **The Coast Garrison Force Reserve.**—The Coast Garrison Force Reserve consists of all members of the Coast Garrison Force who have completed a prescribed period of training and service in that force and who have not passed their forty-fifth year.

15. **The National Reserve.**—This embraces all citizens between the ages of seventeen and sixty years who are not serving in any other portion of the Defence Forces. After the whole of the Active Citizen Force and the Citizen Force Reserve have been mobilized in time of war, the National Reserve may be called out in three classes according to age.

16. **Rifle Associations.**—All citizens who are required to register themselves but who do not undergo peace training are required to serve for four years in a rifle association. Every such citizen will be enrolled as a member of a rifle association on the 1st July, in his twenty-first year. Any other citizen liable to render personal service in time of war, not being a member of the Permanent Force, the Coast Garrison Force, or the Active Citizen Force, may become a member of a rifle association on prescribed conditions; also boys between the ages of thirteen and seventeen residing in areas where no facilities for cadet training exist. Rifles are provided for members of these associations free of charge on a percentage basis, or members may purchase Government rifles at cost price. A free issue of ammunition is made to all members annually.

NUMBER AND MEMBERSHIP OF DEFENCE ASSOCIATIONS, BY PROVINCES, 1923–24.

Province.	Number of Associations.	Membership.		
		Officers.	Other Ranks.	Total.
Cape of Good Hope	447	867	46,836	47,703
Natal	60	67	3,430	3,497
Transvaal	373	1,194	57,387	58,581
Orange Free State	250	510	26,725	27,235
UNION, at 30th June, 1924	1,130	2,638	134,378	137,016
At 30th June, 1923	1,087	2,527	133,872	136,399

17. **Cadets.**—In addition to the various forces enumerated, boys between the ages of thirteen and seventeen in all parts of the Union where facilities for proper training can be arranged are required, unless their parents or guardians object, to become cadets. A cadet who has served efficiently for three years is entitled to a certificate which has the effect of securing a diminution of the subsequent training in the Citizen Force. All arms and equipment for cadet training are issued, and the cost of training is provided, at the public expense.

The following statement shows the number of officers and cadets in each of the four Provinces at 30th June, 1913, 1923, and at 20th March, 1924 :—

Provinces.	1913.		1923.		1924.	
	Officers.	Cadets.	Officers.	Cadets.	Officers.	Cadets.
Cape	177	3,943	472	17,671	455	17,131
Transvaal	135	3,173	418	14,491	463	15,824
Natal	32	3,858	70	4,055	55	4,043
Orange Free State	—	—	76	2,903	91	3,599
TOTAL	344	10,974	1,036	39,120	1,064	40,597

18. **Commission of Inquiry.**—Early in 1925, a Commission of Inquiry, appointed by the Governor-General, consisting of Major-General Sir H. T. Lukin, K.C.B., C.M.G., D.S.O.; Lieutenant-Colonel D. Hugo, M.L.A., and G. B. Steer, Esq., M.P.C., to inquire into complaints of alleged discrimination on other than grounds of military efficiency and suitability in promotion and acceptance of cadets, and other matters alleged to be discordant with good order and discipline and the welfare of the South African Permanent Force, issued its report (U.G. 20—'25).

§ 3. Miscellaneous.

1. **South Africa and the European War.**—A brief account of the activities of the Union in connexion with the European War (1914–19) was given in the fifth issue of this *Year Book*, reference being made to military operations undertaken by the Union Government, the dispatch of the overseas expeditionary forces, the numbers on active service, and the casualties sustained in different theatres of war, the steps taken towards demobilization and the special war legislation passed during the period.

2. **Custodian of Enemy Property.**—The Custodian of enemy property was appointed under the *Trading with the Enemy Act* (Act No. 39 of 1916), which came into force on the 22nd June, 1916. The principal functions of the Custodian were the following :—

(*a*) To collect moneys, to liquidate businesses, and to control firms and businesses belonging to enemies or of enemy association.

(*b*) To examine and prepare statistics required by the courts in connexion with applications for vesting or of sale of property.

(*c*) To enforce the prohibitions with regard to trading with enemies.

(*d*) To administer the estates and property vested and to register claims by British subjects in the Union against enemy persons, firms, or companies.

(*e*) To control sums of money sent overseas for the maintenance of certain persons in enemy territory.

The value of the assets in the Union controlled by the Custodian at 31st December, 1924, amounted to approximately £15,549,282. The disposition of enemy assets is now dealt with under Proclamation No. 101 of 1924, issued in execution of the Treaties of Peace, as amended by Proclamation No. 308 of 1924.

Under the *Financial Adjustments Act*, 1925, provision was made for the Union Treasury to take over the liabilities and assets of the Custodian, and it was anticipated that the work of the Custodian would be completed and the office abolished in the course of the year 1925.

CHAPTER XI.

LAND SURVEY, TENURE, AND OCCUPATION.

§ 1. Land Survey.

1. **Legislation.**—There is as yet no general law governing the admission of land surveyors to practise as such in the Union. In the Transvaal the law at present in force is Ordinance No. 55 of 1903, as amended by Ordinance No. 8 of 1904. In the Orange Free State, Ordinance No. 16 of 1903 applies. Neither in the Cape Province nor in Natal is there any specific law on the subject. The necessary qualifications are laid down in Government proclamations in accordance with long established usage or practice. Although the laws or proclamations differ slightly in detail, the essentials are the same.

A candidate for admission to practise as a land surveyor in any one of the Provinces of the Union to-day must have—

(*a*) attained the age of twenty-one years;
(*b*) passed the examination in the Theory of Land Surveying;
(*c*) served for at least two years in the field with a duly admitted surveyor; and
(*d*) performed to the satisfaction of the Surveyors-General a trial survey in which his practical knowledge of the methods of surveying, use and adjustment of instruments, framing of plans and diagrams, and of the land laws of the country, will be tested.

The following persons are entitled to be admitted as candidates for the examination in the Theory of Land Surveying:—

(i) Any graduate by examination of a university recognized by the Joint Committee.

(ii) Any person who has passed the Matriculation Examination of the University of the Cape of Good Hope.

(iii) Any person who has passed the Senior Certificate Examination of the University of the Cape of Good Hope, including as subjects mathematics and French or German.

(iv) Any person who, not less than one academic year previously, has obtained the matriculation certificate issued by the Joint Matriculation Board, or has received exemption from the Matriculation Examination, provided he has qualified in mathematics at matriculation or other equivalent examination.

The examination is conducted in two parts, but the Joint Committee for Professional Examination may exempt from examination in any subject in Part I a candidate who has passed an examination deemed of equivalent standard, and provided, further, that candidates who have passed in Part I of the old regulations will be exempted from examination in the corresponding subjects in Part I of the amended regulations. No person may be admitted to Part II until the expiration of one academic year after passing the examination in Part I, or such other examination as the Committee may recognize in lieu of Part I.

A surveyor admitted to practise as such in any one of the Provinces of the Union may, on application to the Secretary for Lands, in terms of the *Land Surveyors' Recognition Act*, No. 25 of 1917, obtain a certificate entitling him to practise in any one of the other Provinces.

The adoption of a general survey law for the whole Union is anticipated, consolidating the various laws, regulations, tariffs, fees of office, etc., presently in force in the four Provinces.

A note on the principles underlying survey practice in the Union will be found in the sixth and previous issues of this *Year Book*.

2. **Triangulation.**—Owing partly to the fact that there is little forest in the Union, and partly to the country being generally of a hilly or mountainous nature, land surveying in the Union is carried out almost entirely by means of triangulation, the chain or measuring

tape being used only for the determination of the lengths of base lines or of comparatively short distances for the fixation of points not easily accessible by triangulation.

In addition to the ordinary property surveys which, though sufficient for the purpose of title or transfer, are of little practical value in the compilation of comprehensive and accurate maps of South Africa, some important triangulation surveys have been carried out. The most notable are those made of selected portions of the Cape Province by Sir Thomas Maclear, Her Majesty's Astronomer, between 1841 and 1848, and by Captain W. Bailey, R.E., between 1859 and 1863; but by far the most extensive and important survey operations which have been carried out in the country are the primary triangulation which was performed between the years 1882 and 1893 by Lieutenant-Colonel Morris, R.E., under the direction of Sir David Gill, Her Majesty's Astronomer, and which intersects the Cape Province and Natal by a series of chains of triangles, and the subsequent extension of this triangulation through Natal, the Orange Free State and the Transvaal to Rhodesia.

Since the completion of the primary chains of triangulation, the filling up of the large spaces enclosed by them had up to the end of 1922 not been attempted, but a commencement with this important work was made in the early part of 1923 under the direction of Mr. W. C. van der Sterr, Director of Trigonometrical Survey for the Union.

Reconnaissances for primary triangulation covering (*a*) the divisions of Murraysburg, Graaff-Reinet, Aberdeen, and parts of Beaufort West, Victoria West, Richmond, Middelburg, Somerset East, Cradock, Willowmore, and Prince Albert in the Cape Province; (*b*) the divisions of Albert, Aliwal North, Wodehouse, Molteno, Glen Grey, Queenstown, Tarka, and parts of Philipstown, Colesberg, Steynsburg, Cradock, Cathcart in the Cape Province, and a part of the southern portion of the Orange Free State, have been completed. The erection of beacons has been proceeded with and the work of observations was well advanced by the end of 1923. A reconnaissance for primary triangulation to fill the large open space enclosed by the primary chain between parallels 25° 30″ S., and 27° 30″ S., and longitudes 28° and 30° E., partly in the Transvaal and Orange Free State Provinces is in progress. An important reconnaissance for the purpose of ascertaining the feasibility of incorporating the results of the topographical triangulation performed by the Geographical Section of the General Staff in the Orange Free State during the years 1905–11, and an examination of the stations and centre marks has been completed and concrete beacons with quadripod signals have already been erected at many of the stations preparatory to the work of observing. The primary triangulation and its extensions will form the framework upon which the general survey of the Union is gradually being made.

As contributions to the general survey, several triangulations of a secondary order, based on the primary triangulation, were carried out in the Cape Province under the direction of the late Mr. J. J. Bosman, and in Natal under the direction of Mr. A. Hammar. On the retirement of the former in 1919, Mr. W. C. van der Sterr was appointed Director of Trigonometrical Survey of the Union, and the work of the secondary triangulation has been continued in these Provinces, as well as in the Transvaal. A continuous belt of secondary triangulation, embracing the coastal districts and extending inland from the coast to a depth ranging from fifty miles to 140 miles, from the division of Clanwilliam on the west to Zululand in Natal, has been completed, as well as secondary triangulation covering large portions of the Victoria West and Richmond districts, and a chain of triangulation embracing the Orange River from Herbert to the vicinity of Upington, and thence on to join the primary triangulation in the division of Kenhardt, besides a small chain from Carnarvon to Williston, and a small portion of Van Rhynsdorp. Two important extensions of the gold fields triangulation have also been completed. Secondary triangulation is proceeding in the Vryheid and Zululand districts of Natal, as well as a coast triangulation between Durban and the Bashee River for the purpose of hydrographic survey by the South African Naval Service, the divisions of Somerset East, Bedford, Cradock, Middelburg, Herschel, Barkly East, Elliot, Calvinia, Clanwilliam, Hanover, Britstown, Hopetown, in the Cape Province; the districts of Pretoria, Heidelberg, Witwatersrand, Potchefstroom, Middelburg, and Lydenburg in the Transvaal, including a further important extension of the gold fields triangulation; and the districts of Heilbron and Kroonstad in the Orange Free State.

3. **Government Supervision of Survey.**—In each Province is a Surveyor-General who controls the survey of all Government land, and employs duly admitted surveyors for this work at a tariff fixed by law or regulation. After land is once alienated from the Crown, the Surveyor-General has no further concern with its subsequent subdivisions beyond the examination of the diagrams necessary for effecting transfer of the portions, which as above mentioned must bear his certificate of approval before being accepted for registration in a Deeds Office.

The subdivision of private property may only be performed by surveyors admitted to practise in that Province in which the property is situate. The cost of these surveys is a matter of arrangement between the owner and the surveyor, though the Institutes of Land Surveyors in each Province have fixed tariffs at which most surveys of private property are made.

During the year 1924, 18,491 sets of diagrams were examined in the several Provinces, as follows :—

Cape Province	6,952 sets.
Natal	5,080 ,,
Transvaal	4,869 ,,
Orange Free State	1,590 ,,

4. **Scale of Fees.**—The following are the more important items in a scale of fees chargeable in the offices of the Surveyors-General, as from the 1st April, 1922 :—

SCALE OF FEES CHARGED IN THE OFFICES OF THE SURVEYORS-GENERAL.

	£	s.	d
Examination Fee—			
The examination of a diagram of any piece of land, excluding diagrams of Crown land :—			
For any number of sides up to six inclusive	0	10	0
For each additional side over six	0	1	0
The examination of general plans of townships, framed in terms of the Proclamation of Townships (Transvaal) Ordinance, 1905, and Townships (Transvaal) Act, 1907, per figure	0	1	0
Deduction Fee—			
For deduction of each figure which is represented on a diagram or the laying-off of a servitude (e.g. composite diagram made up of three separate figures—fee 15s —for deductions)	0	5	0
Copies of Diagrams and Tracings, Including Certification—			
Certified copy of each diagram of land not exceeding 10 morgen in extent	0	9	0
Certified copy of each diagram of land exceeding 10 morgen :—			
For a figure of not more than six sides	1	0	0
For each additional side	0	1	0
For each deduction shown on the copy of the diagram	0	1	6
For each copy of a general plan (including plans of townships) : For the time taken on the preparation of the plan	0	5	0 per hour.
Miscellaneous Certified Copies—			
For every certified copy of any document not specified above :—			
For the first 100 words	0	2	6
For every additional 100 words or fraction thereof	0	1	0
For checking and certifying additional copies of a diagram	0	3	6
Certificate—			
For each certificate endorsed on a diagram, tracing, or other document	0	1	0
Searches—			
For every search made in the Offices of the Surveyors-General :—			
For the first hour or portion thereof	0	3	0
For each subsequent half hour or portion thereof	0	1	0
Land Surveyors' Registration Fee—			
Fee for registration as land surveyors upon admission to practise in each Province	5	5	0

§ 2. Tenure and Occupation of Crown Lands.

1. **Land Laws of the Union.**—Prior to the establishment of the Union each Province administered its Crown lands under certain statutory provisions which are referred to in this Chapter under the heading of the respective Provinces. The *Land Settlement Act*, promulgated in October, 1912, was the first land law of the Union Parliament to bring about uniformity of practice in the four Provinces in relation to the acquirement, exchange, and disposal of Crown lands. The Act, which is additional to and not in substitution for any prior law, has proved generally satisfactory in its operation, and has shown that a public need has been met. During the period which has elapsed since the Act was passed the further requirements of lessees and the requirements of new applicants have been gauged. In the light of the experience gained and with a view to meeting these wants and improving the terms and conditions provided by the original Act, amending Acts—No. 23 of 1917, No. 28 of 1920, No. 21 of 1922, No. 38 of 1924, and No. 26 of 1925—have been passed. These six Acts together embody the provisions under which active land settlement in the Union is at present conducted.

2. **Land Settlement Acts.**—The main provisions of these Acts empower the Minister of Lands, *inter alia*—

(*a*) to acquire private land by purchase or exchange for land settlement purposes, and, after division into suitable holdings and advertisement in the *Government Gazette* and local newspapers (giving full details as to terms, price, and the like), to dispose of such land or any other Crown lands similarly treated to approved applicants, on lease for five years with an option to purchase extended over forty years;

(*b*) to acquire and allot particular land selected by an applicant who is prepared to contribute in cash at least one-tenth of the total cost thereof;

(*c*) to make advances not exceeding £500 in amount to lessees under the Act for the purpose of developing their holdings;

(*d*) to cause boring operations to be effected or improvements of a substantial nature to be erected or constructed, and to add the cost thereof to the purchase price of holdings;

(*e*) to grant temporary occupation of certain Crown land to probationary lessees and allot holdings on closer settlements to probationary lessees upon satisfactory completion of a course of training.

The procedure in regard to the allocation of Crown lands is as follows:—

(i) *Land Boards.*—The Minister is assisted by five Land Boards, each of five members, and to these bodies all matters under the Act are referred for consideration, advice, report, or recommendation.

(ii) *Qualifications.*—For land under 2 (*a*) and (*b*) the applicant must (*a*) be at least eighteen years of age; (*b*) possess qualifications sufficient for utilizing the land; (*c*) intend to occupy, develop, and work the holding; (*d*) be of good character.

(iii) *Terms.*—For land under 2 (*a*)—leased farms—the principal terms are that—

(*a*) The lease shall be for five years.

(*b*) The rentals charged on the purchase prices shall be (1) for the first year, nil; (2) for the second and third years, 2 per cent. per annum; (3) for the fourth and fifth years, 3½ per cent. per annum, payable half-yearly in advance.

(*c*) The lease may, with the Minister's consent, be extended for a further period not exceeding five years at a rental of not less than 4 per cent. per annum on the purchase price.

(*d*) The option to purchase a holding by paying the purchase price over a period of forty years can be exercised at any time with the Minister's consent, subject to the lease conditions being fulfilled and improvements to the value of 10 per cent. of the purchase price being constructed on the holding.

(*e*) Instalment payments on every £100 of purchase price amount to £5. 0s. 8d. (i.e. 5·03 per cent.) per annum, which includes interest at 4 per cent., and the residue is apportioned to capital, the interest payment diminishing and the capital payment increasing after each instalment (which remains the same throughout) is paid. The payments must be made half-yearly in advance.

For land under 2 (*b*)—farms specially purchased for applicants—the principal terms are that—

(*a*) There must be a lease on which the option to purchase is exercised from the date of transfer of the land to the Government.

(*b*) For the first two years the payments are nil; for the subsequent thirty-eight years the purchase price, plus interest at 4 per cent., is paid in half-yearly instalments in advance.

(*c*) On every £100 of purchase price appearing in the lease, the yearly payment would amount to £5. 2s. 10d., i.e. 5·14 per cent., which includes interest at 4 per cent., and the residue is apportioned to capital, the interest payment diminishing and the capital payment increasing after each instalment (which remains the same throughout) is paid. The payments must be made half-yearly in advance.

(*d*) One-tenth of the total price at which the land was sold must be paid by the lessee before allotment.

(*e*) The purchase price of the holding payable as in (*b*) above, is made up of (1) the purchase price paid by the Minister; (2) the cost of transfer and the survey fees; (3) other expenditure by the Minister in connection with the purchase, transfer, and allotment of the land; (4) interest for a period of two years at the rate of 4 per cent. per annum on the aggregate of the amounts mentioned in (1), (2), and (3), but the contribution made towards the purchase price by the lessee is excluded from that aggregate.

The one-tenth contribution is excluded from the above amount in arriving at the purchase price payable over thirty-eight years by a lessee.

(iv) *Conditions.*—For land under 2 (*a*) and (*b*) the conditions provide for—

(*a*) personal occupation;
(*b*) care of improvements and trees;
(*c*) no sub-letting, mortgaging, or transfer without authority;
(*d*) the holding to be utilized for agricultural and pastoral purposes;
(*e*) the reservation of all minerals, except in the case of land under 2 (*b*), when on issue of Crown Grant the mineral rights, withheld during the lease period, are granted;
(*f*) the liability of the lease to cancellation should its terms or the provisions of the Act not be complied with;
(*g*) the land to be improved, when no improvements exist at the date of allotment, within the first five years by improvements to the extent of 10 per cent. of the value of the holding;
(*h*) no compensation for improvements on cancellation of the lease, but if on re-allotment of the land an incoming tenant pays for the improvements, the outgoing lessee will be paid such amount, less debts owing to the Government;
(*i*) capital instalments of the purchase price being repaid on cancellation, less debts and in the case of land under (2) (*b*) that the Minister may repay the one-tenth contribution made.

(v) *General Provisions.*—There are certain general provisions in the Act dealing with (*a*) the addition to the purchase price of the cost of improvements which may be made by the Minister for boring and the like, and the consequent increase of the annual payments; (*b*) the cancellation of the interests of joint holders in land, if all the lessees do not comply with the terms of the lease; (*c*) the transfer of a lessee's interests to another qualified person; (*d*) the allotment of land to persons oversea, who must apply through the High Commissioner in London; (*e*) allotment of holdings on condition of payment of part purchase price thereof; (*f*) issue of Crown Grants to lessees on hypothecation of holding for amount of indebtedness to the Government; (*g*) the capitalization of arrears due till 30th June, 1925, and the consolidation of advances made in terms of section 44 of the Act; as well as other provisions governing particular circumstances.

3. **Advances to Lessees.**—The Act provides for advances being made to lessees up to an amount of £500 for the purchase of stock, implements, seeds, and other things necessary for the development of the holding. The Minister may also effect certain improvements on any holding out of public moneys and add the cost thereof to the purchase price of the land, or treat the amount as an advance. The advances are repayable over five years from the date on which they are made, and interest is at the rate of 4 per cent. per annum. In special circumstances the Minister may extend the time of repayment for periods not to exceed five years.

4. **Advances to Lessees of Town Lands and Commonages.**—An amendment to the Act now admits of advances being made for the purchase of cattle to assist persons who have leases of lots within any area or settlement laid out for farming or agricultural purposes by any local authority on town lands or commonages, provided that the Land Board within whose area the land is situate recommends the application.

Conditions.—The stock is the property of the Government and must be branded. On the termination of the lease held by the debtor the moneys due to the Government for the advance become repayable.

5. **Statistics: Results of Working of the Land Settlement Act.**—The operations under sections 16–20 of the Act, in terms of which sections the land is leased for five years with an option of purchase over twenty years, are as follows:—

ALLOTMENTS MADE UNDER SECTIONS 16–20 OF THE LAND SETTLEMENT ACT 1912,* TO 31st MARCH, 1924.

Province.	1st April, 1923, to 31st March, 1924.				1912 to 31st March, 1924.		
	Number of Holdings.	Number of Settlers.	Area.	Valuation.	Number of Settlers.	Area.	Valuation.
			Morgen.†	£		Morgen.†	£
Cape	43	42	26,848	32,042	872	1,639,922	509,426
Natal	45	52	22,818	36,886	536	224,633	604,513
Transvaal	166	119	46,141	76,400	2,190	1,837,651	1,248,900
Orange Free State	4	6	4,045	4,810	264	123,131	285,484
TOTAL	258	219	99,852	150,138	3,862	3,825,337	2,648,323

* Passing of Act at end of 1912. † 1 Morgen is equal to 2·1165 acres.

(i) *Section 11 of the Act.*—This Section, which provides for land being purchased specially for applicants who are prepared to contribute one-tenth of the purchase price, was suspended, owing to the outbreak of the War, and no transactions were effected thereunder subsequent to August, 1914. During the session of Parliament in 1917, however, further funds were voted to enable purchases of land to be made in terms of Section 11. A table showing particulars of the operations under this section from the passing of the Act at the end of 1912 is given hereunder :—

LAND PURCHASED UNDER SECTION 11 IN THE VARIOUS PROVINCES, 1912,* TO 31st MARCH, 1924.

Province.	Area.	Valuation.	Number of Holdings.	Number of Lessees.
	Morgen.†	£		
Cape of Good Hope.....	63,878	244,575	171	200
Natal.....	19,879	134,031	64	82
Transvaal.....	358,121	1,273,087	913	1,159
Orange Free State.....	33,007	132,269	72	84
TOTAL.....	474,885	1,783,962	1,220	1,525

* Passing of Act at end of 1912. † 1 Morgen is equal to 2·1165 acres.

Contributions by the Government in respect of the purchase price, including interest, transfer costs, and other incidental expenditure, amounted to £1,400,502, and contributions by the persons assisted to £383,460, representing a total of £1,783,962.

(ii) *Section 10 of the Act.*—This section provides for the purchase of land for subdivision into suitable farms for allotment to the public. The total amount expended from the year 1912 in acquiring land under this section amounted to £1,289,215, the area purchased being 291,490 morgen.

6. **Other Laws of the Union.**—The other land laws which have been introduced since the establishment of the Union affect lessees and their land in a particular Province, and are dealt with later in this summary. The main Acts are the *Transvaal and Orange Free State Land Settlements Amendment Act*, 1912 (Act No. 15 of 1912) and the *Transvaal and Orange Free State Land Settlements Act Further Amendment Act*, 1916 (Act No. 16 of 1916). These Acts deal with settlers placed on Crown lands in the Transvaal and the Orange Free State by the Crown Colony Governments between the years 1902 and 1907, and enable those settlers to secure freehold of their holdings on passing a mortgage bond in favour of the Government for the amount of the purchase price of the land, plus the amount owing for advances. In the Transvaal the total sum due is repayable over thirty years, with interest at 4 per cent. by equal half-yearly instalments payable in advance ; in the Orange Free State it is repayable before the expiration of thirty years, during which period interest at 4 per cent. is repayable half-yearly in advance.

7. **Cape of Good Hope Province.**—The disposal of Crown lands in the Cape Province was regulated prior to the establishment of the Union by various Land Acts, dating more particularly from 1887 to 1908, and was on the basis of parliamentary control.

(i) *Act No. 15 of 1887.*—The principal Act in the Cape dealing with the disposal of Crown lands is Act No. 15 of 1887, and in a sense all other Acts in force with regard to the alienation of such land may be said only to establish exceptions to this Act. The land is offered at public auction at an upset price. In cases where the purchase price exceeds £25, twelve calendar months are allowed for the payment of one-fifth thereof, while a mortgage in favour of the Government for the remaining four-fifths may be passed bearing interest at 5 per cent. per annum.

The Act further provides for the granting of land for special public purposes, for carrying on trade in native locations, for grants to municipalities, for the disposal of small pieces of Crown land between farms (uitval grond), and for leases of irrigable lands, fishing stations, seaside resorts, and the like.

(ii) *Act No.* 37 *of* 1882.—This Act authorizes the disposal of land from four to two hundred and fifty morgen in extent on a five years' licence entitling the holder to receive a grant at the end of the term, subject to a perpetual annual quitrent. The licence fee and the annual quitrent payments are the same and amount to one-twentieth of the valuation at allotment. The quitrent can at any time be redeemed by the payment of a total sum equal to twenty times the annual instalment.

(iii) *Act No.* 40 *of* 1895.—This Act is an elaboration of the principle established by Act No. 37 of 1882, and provides a scheme for land settlement for use in large areas on non-arable or slightly arable land. The purchase price is payable in twenty equal annual instalments. A successful applicant obtains a licence to occupy a farm for five years, during each of which he pays one-twentieth part of the purchase price. After five years, if the licence conditions have been complied with, or after two years if improvements at least equal to the value of the purchase price have been effected and the licence conditions have been fulfilled, title to the land is granted, on a mortgage bond in favour of the Government being passed to secure payment of the remaining instalments.

(iv) *Act No.* 42 *of* 1908.—Act No. 40 of 1895 was amended to some extent by this Act, which also provides for the issue of water prospecting licences over dry areas of unsurveyed Crown lands. If water was found the successful licence holder would be entitled to receive a licence over about 21,000 acres for five years with subsequent conversion to title on the lines governed by Act No. 40 of 1895. The operation of the Act has been suspended.

(v) *Act No.* 26 *of* 1891.—This Act deals with the sale of certain lands bought or improved by Government, and provides also for leasing land for five years without the option of purchase.

(vi) *Act No.* 23 *of* 1893.—This Act permitted the Government to dispose of land acquired by the Rhodesian Railways in Bechuanaland from the Bechuanaland Government, in which the Cape Government held an interest.

(vii) *The Land Settlement Act*, 1912, is, of course, operative in the Cape Province, and Crown land for disposal is also dealt with under that Act.

(viii) *Act No.* 8 *of* 1922.—This Act amended the provisions of Act No. 15 of 1887 to the extent that the Government was empowered to sell or lease any Crown land within the Cape Province or to exchange any such land for privately owned land.

8. **Natal Province.**—Prior to the passing of the *Land Settlement Act*, 1912, the only Act which dealt with land settlement in Natal was Act No. 44 of 1904, which was intended to aid and encourage the agricultural development of Natal. The Act, though amended, was found to be defective and unworkable, and operations thereunder have been suspended. The disposal of Crown lands, when not dealt with under the *Land Settlement Act*, 1912, is governed by rules and regulations promulgated by the Governor-General under the powers conferred upon him by Section 122 of the *South Africa Act*.

(i) *Proclamations, etc.*—The main Proclamations issued are :—

(*a*) *No.* 121 *of* 1924, dealing with the disposal of Crown lands in Natal (including Zululand) other than sugar-cane lands, Crown reserves, special reserves, and township lands.

(*b*) *No.* 103 *of* 1911, providing for the disposal of lands in the divisions of Ixopo Bergville, Impendhle, New Hanover, Ipolela, Dundee, and Lions River. These lands were acquired by the Government of the Colony of Natal for closer settlement.

(*c*) *No.* 219 *of* 1911, providing for the disposal of Crown lands in Natal (including Zululand) set apart for the cultivation of sugar-cane.

(*d*) *No.* 170 *of* 1923, dealing with the disposal of Crown lands in Government townships and urban areas in Natal.

All applications for land are considered by the Land Board, which advises the Minister with whom the final selection rests. No applications are considered from persons under eighteen years of age or who possess more than one hundred acres of land ; and personal occupation for nine months is required. The purchase price of ordinary Crown lands is payable in twenty equal instalments of capital and interest, the first of which is payable at the termination of the third year from the date of allotment. The sale price of acquired lands, the disposal of which is governed by Proclamation No. 103 of 1911, is payable in eighteen instalments, including interest at 5 per cent., the first instalment falling due at the end of the third year from the date of allotment.

(ii) *Sugar-Cane Lands.*—In the case of sugar-cane lands dealt with under Proclamation No. 219 of 1911 the terms and conditions are briefly as set out hereunder :—

(*a*) *Lease.*—For a period of ninety-nine years.

(*b*) *Rental.*—For the first and second years, nil. For the next succeeding twenty years an annual rental representing one-twentieth of the valuation of the land is charged ; thereafter an annual rental of one shilling per annum in respect of the remaining period of the lease.

(c) *Conditions.*—The reason for the issue of a ninety-nine years' lease is that before sugar lands are allotted, it is customary for the Government to arrange with a third party for the erection and working of a central mill to deal with cane grown by Crown allottees. There is no Government liability towards the mill-owners or the planters, but the former obtain from Government a lease of a suitable mill site, together with the sole crushing rights up to a stated limit of cane grown within a certain area by Crown allottees. These allottees are, under the terms of their leases, bound to enter into agreements for the crushing of cane at the central mill. The Government settles the terms of such agreements beforehand and safeguards as far as possible the allottees' interests.

(d) *Cultivation.*—The allottee is required to cultivate sugar-cane on at least 15 per cent. of his land during the first three years of his tenure, and thenceforward to maintain such area under cultivation.

(iii) *General.*—In Natal (including Zululand) grazing lands, being unalienated Crown lands not suitable for European settlement, are offered for tender under Proclamation No. 221 of 1914. Tenders are also invited from time to time for the disposal of erven in townships in terms of Proclamation No. 170 of 1923.

9. **Transvaal Province.**—(i) *Crown Land Disposal Ordinance*, 1903.—This Ordinance (No. 57 of 1903), as amended by the *Crown Land Disposal Amendment Ordinance*, 1906, may be termed the basis of land administration in the Transvaal. The *Transvaal Settlers Ordinance* of 1902 (No. 45 of 1902), which was later amended by the *Land Settlement Act*, 1907 (No. 37 of 1907), was the first Ordinance under Crown Colony Government to deal with what is usually termed land settlement. The funds from which settlers were assisted, and with which land was acquired, were furnished from the Guaranteed Loan, 1903, out of which £1,300,000 was set aside for general land settlement purposes.

(ii) *Crown Land Disposal Ordinance*, 1903 (*as amended*).—This Ordinance allows the Government generally to dispose of unalienated Crown lands by grant, sale, lease, or otherwise, and to exchange, donate, or reserve such land. Provision is also made for the establishment of a Land Board.

The powers of the Ordinance are wide, but the leases in force have been framed on the following basis :—

(a) *Leases with Option of Purchase :—*

(1) *Terms.*—Five years' lease. Renewal for further five years with the Minister's consent. The option to purchase is included in the terms.

(2) *Rental.*—for first and second years, 1½ per cent.. } on the purchase price.
for following three years, 2½ per cent... }
if lease extended, 4 per cent..... }

(3) *Option.*—If the option to purchase is exercised the purchase price is payable half-yearly in advance by equal instalments over twenty years, with interest at 5 per cent. The yearly amount on every £100 of the purchase price totals £7. 19s. 4d. (about 8 per cent.), of which 5 per cent. of the instalments is devoted to interest; the amount credited to interest decreases on each payment and the sum credited to capital increases.

(4) *Conditions.*—The essential conditions imposed embrace (a) personal occupation; (b) erection of a suitable residence within two years; (c) no sub-letting, assignment, or transfer without consent; (d) minerals reserved to the Crown; (e) no payment for improvements on cancellation.

(5) *Crown Grants.*—These may be issued after ten years, provided that the full purchase price is paid during that period and that the conditions of the lease are fulfilled.

Particulars of all land are advertised, and the Land Board deals with all applications submitted and makes a recommendation to the Minister as to the particular applicant to whom the land should be allotted.

(b) *Leases without Option of Purchase.*—These are usually issued where some impediment to the sale of the land exists, due to the land being mineralized or having been proclaimed under the mining laws.

(1) *Terms.*—Twenty-one years' lease.

(2) *Rental.*—The rental is determined in each case and advertised, but is generally 2½ per cent. on the value of the holding.

(3) *Conditions.*—The principal conditions applying to a lease are similar to those under (ii) (a) above.

Farms which are not considered suitable for disposal under the *Land Settlement Act*, 1912, are disposed of under the *Crown Land Disposal Ordinance*, 1903 (Transvaal).

(4) *Statistics.*—The following particulars show at a glance the operations under the Ordinance :—

WORKING OF CROWN LAND DISPOSAL ORDINANCE, TRANSVAAL (1903).

Description.	1st April, 1923, to 31st March, 1924.	Total result from passing of Ordinance to 31st March, 1924.
Lessees.....No.	83	1,559
Area.....Morgen*	231,110	1,646,761
Approximate valuation.....£	67,399	707,475

* 1 Morgen is equal to 2·1165 acres.

(iii) *Settlers Ordinance*, 1902 (*Transvaal*) (*as amended*).—The settlers who have been allotted holdings under this Ordinance, and who have generally become known as the "Milner Settlers," were until the granting of Responsible Government in 1907 dealt with by the Lands Department. Under the Letters Patent granting Responsible Government, a Land Board was established for five years to take over the control and administration of the Ordinance, and the land subject thereto was transferred to the Board. At the expiration of the Board's terms of office, in 1912, the administrative control was resumed by the Department.

The Settlers Ordinance as amended during 1907 by the promulgation of the *Land Settlement Act*, 1907 (Transvaal) makes provision as under :—

(*a*) *Leases.*—For five years, conditionally renewable for two further periods of five years, thus providing for a lease for a total period of fifteen years. The lease contains an option of purchase.

(*b*) *Rentals.*—1¼ per cent. for the first and second years ; 2½ per cent. for the third to fifth years, and on the first five years' extension of lease ; not less than 4 per cent. is charged on the purchase price for any further extension of lease.

(*c*) *Licences.*—When the option of purchase is exercised, the lease is determined and a settler obtains a licence from the date of cancellation of the lease, under which licence the purchase price is payable by instalments over thirty years bearing interest at 4 per cent. per annum.

On every £100 of the purchase price the payments are £5. 15s. per annum (5¾ per cent., of which 4 per cent. is interest). After the first payment the amounts in respect of interest decrease and the amount devoted to the reduction of capital increases.

(*d*) *Conditions.*—Provisions relating to personal occupation, erection of a suitable residence within two years, restrictions against sub-letting, assignment, or transfer, and provisions for the reservation of minerals to the Crown, are embodied in both lease and licence issued under the Ordinance.

(*e*) *Advances.*—Most of the settlers received advances from time to time of an average of £300 ; in some cases as much as £1,000 was advanced. The money was furnished from the Transvaal Guaranteed Loan out of which £1,300,000 was set aside for land settlement, and was supplemented by about £16,000 derived as revenue from the late Land Settlement Board.

(*f*) *Concessions.*—Many of the settlers were further assisted by the Crown Colony and late Transvaal Governments by a writing-off of advances, rent, and interest, but beyond mentioning the circumstance there is no necessity to particularize the extent of the concessions granted by the Government from time to time.

(*g*) *Statistics.*—On the dissolution of the Board in April, 1912, 440 settlers established on 380 holdings were handed over to the Department, and at the 31st March, 1923, 57 settlers were in occupation of 47 holdings on licence or lease under the *Settlers Ordinance*. The difference in the numbers for the two periods is accounted for by the settlers having availed themselves of the privileges of Act No. 15 of 1912 and taking out Crown Grants of their holdings.

(iv) *Transvaal and Orange Free State Land Settlements Amendment Act*, 1912.—During the year 1912 an Act was passed authorizing the issue of Crown Grants of holdings allotted under the respective Settlers Ordinances in force in the Provinces of the Transvaal and the Orange Free State. (This Act was later amended by Act No. 16 of 1916.) The Act provides for the issue, on the recommendation of the Land Board, of a quitrent title to the settler, subject to the passing of a bond in favour of the Government, securing any balance due in respect of the purchase price, or advances outstanding.

(*a*) *Terms.*—Payments due under the bond are made over a period of thirty years by equal half-yearly instalments bearing interest at 4 per cent. per annum.

(*b*) *Conditions.*—If the settler-mortgager desires to sell his holding, he must give the Minister an option of purchase at the price at which he desires to sell privately, and this option must be exercised by the Minister within one month, should he desire to take over the property.

10. **Orange Free State Province.**—(i) *General.*—In the Orange Free State a sum of £1,250,000 was allocated to land settlement purposes, from the Guaranteed Loan of £35,000,000. The Crown Colony Government also inherited land to the value of about £312,000 from the late Republic. Under the Letters Patent, when Responsible Government was granted in 1907 a Land Board was established for a period of five years, and the Board administered the schemes of settlement in that Colony. The principal Act administered by the Board was the *Land Settlement Ordinance*, 1902 (O.F.S.). With one exception the settlers established thereunder have taken advantage of the terms of Act No. 15 of 1912.

(ii) *Transvaal and Orange Free State Land Settlements Amendment Act*, 1912.—Shortly before demitting office the Board made certain proposals to the Government which resulted in the passing of the *Transvaal and Orange Free State Land Settlements Amendment Act*, 1912, which Act was amended in certain details at a later date. This Act enabled a settler holding land under the Ordinance previously quoted to obtain a Crown Grant for his land, provided that simultaneously with the registration of the Grant a bond in favour of the Government was passed to secure both the purchase price of the farm and the outstanding amount of the advances owing to the Government.

(*a*) *Settlers.*—556 persons held land under the Ordinance when the Board relinquished office, and the Board recommended that the majority should receive the advantages conferred by Act No. 15 of 1912.

(*b*) *Conditions.*—Interest at the rate of 4 per cent. is payable half-yearly in advance on the amount of the bond; the bond is for thirty years, and the amount must be liquiadted before or immediately on the expiration of that term. If the settler-mortgager desires to sell his holding, he must give the Minister an option of purchase at the price at which he desires to sell privately, and the option must be exercised by the Minister within one month, should he desire to take over the property.

On the dissolution of the Board in 1912 the administration of the Ordinance devolved upon the Department.

(*c*) *Total Bonds.*—At the 31st March, 1924, mortgage bonds were in force in the Orange Free State in respect of a sum of £509,982 due to the Government by settlers.

(iii) *Other Laws in the Orange Free State.*—Prior to the passing of the *Land Settlement Act*, 1912, the laws governing the disposal of Crown lands, other than for settlement purposes, were the *Crown Lands Small Areas Disposal Ordinance*, 1905, and the *Crown Lands Disposal Ordinance*, 1908.

These laws provide for the sale of Crown lands which are not of sufficient extent to be occupied as separate holdings.

11. **Method of Application for Vacant Crown Lands (Unadvertised).**—Applications by letter, addressed to the Secretary for Lands, Pretoria, may at any time be made for any portion of unsurveyed vacant Crown lands, from areas sufficiently large to be utilized as cattle ranches to areas small enough to form market gardens. Such applications indicate to the Department the district in which the demand for the vacant Crown land exists, and, if such a course is considered advisable, reports on the land are obtained. If the reports are favourable the land is surveyed, divided into farms and valued, particulars are advertised in the *Government Gazette*, and the applicant is afforded an opportunity of obtaining the land he may desire, his application being of course considered together with those of other applicants. Evidence of a demand for land is established by inquiry made for such land; by new conditions, such as the desire to establish cattle ranching, or to

undertake cotton growing on a large scale, and by the advent of railway communication. Manifestations in this direction are met by the particulars of Crown land being publicly advertised and the land being offered for allotment.

The High Commissioner for the Union of South Africa in London (address: Trafalgar Square, W.C. 2) is prepared to give general information and advice to persons, who may desire to take up farming pursuits in the Union, as to local conditions and farming possibilities in various parts of the Union.

12. **Advertised Crown Lands open for Application.**—The *Government Gazette* and the local newspapers publish from time to time lists of farms available for allotment. These lists contain information of a particular and general nature regarding the land offered, show under which Land Acts, and on what terms, the farms can be leased or acquired, and indicate when, and the manner in which, applications should be made. A form of application for such land is obtainable from any Magistrate. Farms of the kind referred to may be either vacant Crown land which has been surveyed into farms or land procured by purchase by the Government or by exchange for land settlement purposes.

13. **Method of Purchase.**—Section 11 of the *Land Settlement Act*, 1912, as amended by the *Land Settlement Act Amendment Act*, 1917, and Act No. 26 of 1925, provides for the purchase for an applicant of any land suitable for settlement within the Union. The following essential conditions are imposed:—

(*a*) The farm must not cost more than a total of approximately £1,650, of which the Government contributes a sum not exceeding £1,500, i.e. nine-tenths of the price.

(*b*) The applicant must be prepared to pay and deposit in cash one-tenth of the total cost to the Government.

(*c*) An option to purchase the farm must be obtained in favour of the Minister of Lands for a period of approximately six weeks.

(*d*) Land with onerous servitudes will not be considered, nor, generally speaking, will undivided portions be purchased.

(*e*) A letter addressed to the Secretary for Lands, Pretoria, must be written by the applicant, giving a description of the land indicating the total price to be paid and the applicant's readiness to contribute, in cash, one-tenth of the purchase price, and enclosing the option of purchase.

(*f*) The applicant must (1) be at least eighteen years of age; (2) possess qualifications sufficient for utilizing the land; (3) intend to occupy, develop, and work the holding; and (4) be of good character.

If, after an inspection of the holding by the Land Board concerned, the Minister decides to purchase, the land will be allotted to the applicant on a lease from the date on which it is transferred to the Government, and from that date the lessee exercises his option to purchase the land from the Government by the payment, over a period of thirty-eight years of half-yearly instalments in advance, the first of such instalments falling due two years after the date of transfer to the Government. The payments to be made over a year are thus approximately at the rate of 5·14 per cent., of which 4 per cent. is devoted to interest. While the instalments payable throughout the thirty-eight years remain the same, the amount apportioned to interest becomes smaller after each payment, and the amount by which the capital is paid off becomes larger. The particular advantages to be gained by a successful applicant for the purchase of land in the manner described are that he has the selection of the land which he desires to purchase, and is not in competition with numerous other applicants for the same land, as would be the case if he applied for advertised Crown lands, which are allotted after a selection from all the applicants has been made.

14. **Advances.**—The Government will consider, on the merits of each case, applications from persons for whom land has been purchased, for advances not exceeding £500 to assist them to purchase stock, seeds, and other farming necessaries, and may further aid those persons by sinking boreholes or making permanent improvements on their farms and adding the cost to the purchase price of the holdings.

15. **Financial.**—At the 31st March, 1924, there were 11,213 debtors on the books of the Department, the capital sum due to the Government for land sold, for advances made to settlers, and the like, amounting to £3,878,722. The collections during the year were: for rent £55,832 and for interest £98,026; while the arrears still owing under these two heads were: for rent £88,842 and for interest £111,493.

16. **General Statistics.**—The following table summarizes the allotments of agricultural holdings made during the twelve months ended the 31st March, 1924, and during the period from the 31st May, 1910. under the several statutes governing the disposal of land for settlement purposes :—

ALLOTMENT OF AGRICULTURAL HOLDINGS.

Statutes Governing Allotment.	1st April, 1923, to 31st March, 1924.				31st May, 1910, to 31st March, 1924.		
	Number of Holdings.	Number of Settlers.	Area.	Valuation	Number of Settlers.	Area.	Valuation.
			Morgen.	£		Morgen.	£
Land Settlement Act, 1912–							
Section 11	141	168	50,366	221,539	1,525	474,885	1,783,962
Section 16	258	219	99,852	150,138	3,862	3,825,337	2,648,323
Crown Land Disposal Ordinance, 1903 (Transvaal)*							
Leases with option of purchase	44	47	48,407	18,036	1,779	1,868,426	701,870
Leases without option of purchase	29	36	182,703	49,363	627	823,968	266,601
Natal Proclamations	9	10	4,998	3,624	696	251,245	564,154
Act No. 37 of 1882 (Cape)	—	—	—	—	39	3,477	5,577
Act No. 15 of 1887 (Cape)	5	7	653	454	380	666,708	150,544
Act No. 26 of 1891 (Cape)	—	—	—	—	424	1,402,399	104,263
Act No. 23 of 1895 (Cape)	—	—	—	—	12	50,689	4,249
Act No. 40 of 1895 (Cape)	—	—	—	—	232	1,276,561	75,434
Act No. 41 of 1902 (Cape)	6	6	1,178	6,164	48	8,976	31,070
Act No. 13 of 1908 (O.F.S.)	—	—	—	—	34	36,679	27,496
Irrigation Settlements Act No. 31 of 1909 (O.F.S.)	—	—	—	—	259	2,669	58,486
TOTAL	492	493	388,157	449,318	9,917	10,692,019	6,422,029

* Includes reallotment of surrendered holdings, cancellations, etc.

17. **Boreholes and Windmills.**—Boreholes are sunk for Crown lessees, and in the case of deep boring windmills are erected.

§ 3. Registration of Deeds.

1. **Deeds Registries in the Cape of Good Hope.**—There are in the Cape Province four Deeds Registry Offices, situated at Cape Town, King William's Town, Kimberley, and Vryburg respectively.

Each Registry is in charge of an officer styled the Registrar of Deeds, and effects registration in respect of that portion of the Province specially allotted to it, as under :—

King William's Town	The Divisions of King William's Town, East London, Komgha, Stutterheim, and portions of the Divisions of Cathcart and Victoria East.
Kimberley	The Divisions of Kimberley, Barkly West, Herbert, and Hay.
Vryburg	The Divisions of Vryburg, Mafeking, Gordonia, Kuruman, and Taung.
Cape Town	The remaining divisions and districts, one hundred and two in number.

It is essential for the purposes of registration that all transfer deeds and mortgage bonds shall have been drawn or prepared by persons duly authorized by law so to do and be executed in the presence of the Registrar concerned. In the Cape Province advocates of the Supreme Court and conveyancers are so authorized. Other deeds are only registered if they have been executed in the presence of a notary public and attested by his signature.

The principal functions of the several Registrars of Deeds are the following :—

(*a*) To register grants or leases, by the Crown, of land.
(*b*) To examine, attest, and register deeds of transfer or hypothecation of land.
(*c*) To register cessions of mortgage bonds, or renunciations, or waivers, by the legal holders.
(*d*) To effect the necessary registration in connection with the cancellation of mortgage bonds, or part-payments, or releases therefrom.
(*e*) To register antenuptial contracts, general or special notarial bonds, notarial deeds of servitude and of donation, and other notarial deeds registrable by law.
(*f*) To register leases and cessions of leases of rights to minerals as defined by Act No. 31 of 1898, namely, gold, silver, and platinum.
(*g*) To register usufructs of land.
(*h*) To register notarial deeds of lease of land for ten years and upwards.
(*i*) To issue and register such certificates of title to land as may be prescribed by law.
(*j*) When so required by law, to satisfy themselves in connection with the registration of any deed—
  (1) that the duties, taxes, fees, dues, and quitrent (if any) payable to the Government or Provincial Administration have been paid ;
  (2) that rates or charges payable in respect of land to a local authority have been paid.
(*k*) Generally to exercise all such powers and discharge all such duties as are by statute and common law imposed upon them.

(i) *Deeds Registry at Cape Town.*—The Deeds Registry at Cape Town came into being in the year 1828 as a result of the promulgation of Ordinance No. 39 of 1828. Particulars of this enactment and historical details of earlier provision for the registration of bonds and obligations (e.g. the Debt Register established by a *Placaat* of 1714) are given in previous issues of this *Year Book*. Ordinance No. 27 of 1846 made registration in the Debt Register compulsory, Act No. 21 of 1875 provided for the registration of antenuptial contracts, and Act No. 43 of 1895 for the registration of debentures.

Of other measures relating, either wholly or in part, to the transfer of land the following may be mentioned : the *Titles Registration and Derelict Lands Act*, 1881, which, *inter alia*, provides machinery for obtaining transfer when land has been acquired by prescription, or when owing to some cause transfer cannot be obtained in the ordinary course ; the *Glen Grey Lands and Local Affairs Act*, 1894, which, in addition to other matters, provides for a simple and inexpensive form of transfer in regard to native allotments situate in the district of Glen Grey and any other native areas to which the Act may be applied.

The *Deeds Registry Act*, 1891 (No. 19), amended materially the law relating to the registration of deeds, and by regulations framed thereunder from time to time the practice of the Office was defined and modified on various points. The *Deeds Registry Act* was further amended in 1905 by the *Deeds Registry Amendment Act* (No. 39). With the exception of one section of each, these Acts have been repealed and superseded by the *Deeds Registries Act*, 1918 (No. 13), whereby the laws in force in the Union relating to the registration of deeds were consolidated and amended, and the prior legislative enactments affecting the Office were repealed wholly or in part. This Act has in turn been amended in certain respects by Act No. 15 of 1922.

By section 59 of the *Deeds Registries Act*, 1918, provision was made for the appointment of a Deeds Registries Regulations Board with power, subject to the approval of the Governor-General, to make, alter or rescind regulations on the subjects mentioned in section 60. Regulations framed by this Board came into effect on the 1st January, 1919 ; but were superseded by new regulations published under Government Notice No. 1630 of the 6th October, 1922, with effect from the 1st January, 1923.

In addition to the above enactments which directly affected or regulated the Office there are various other Acts and Ordinances imposing special duties upon the Registrar, among which may be mentioned the following :—

The Transfer Duty Act, 1884, requires the production of a receipt for transfer duty in connection with every transfer not expressly exempted ; Acts Nos. 16 of 1890, 23 of 1892, 30 of 1893, and 3 of 1905 were passed to facilitate the transfer of land mortgaged to Government under the *Crown Lands Disposal Act*, 1887 ; Act No. 3 of 1873 vests land transferred to particular trustees and office-bearers of companies and associations in the successors in office of such trustees and office-bearers ; *the Cape Municipal Ordinance*, 1912, the *Divisional Councils and Roads Ordinance*, 1917, the *Provincial Immovable Property Tax Ordinance*, 1918, and extensions thereof ; the *Village Management Boards Ordinance*, 1921, and the *Local Boards Ordinance*, 1921, *inter alia*, prohibit the transfer of land without the production of proof that the rates and taxes, as the case may be, have been paid. The Registrar is also charged by the *Companies Act*, 1892, with the registration of joint-stock companies and of the returns prescribed thereby, and by the *Special Partnerships' Limited*

Liability Act, 1861, with the registration of limited partnerships. Other less important Acts and Ordinances affecting the Registry also exist, such as the *Friendly Societies Act* No. 7 of 1882, whereby friendly societies were required to be registered therein. Although this Act was repealed by Act No. 5 of 1892, it still remains in force in respect of the societies registered in terms thereof which were not re-registered under the repealing Act.

Of the laws passed since Union imposing additional responsibilities upon Deeds Registries, mention may be made as follows: the *Stamp Duties and Fees Act*, 1911, and subsequent amendments; the *Dipping Tanks (Advances) Act*, 1911, and subsequent amendments; the *Irrigation and Conservation of Water Act*, 1912; the *Fencing Act*, 1912, and subsequent amendments; the *Land Bank Act*, 1912, and subsequent amendments; the *Land Settlement Act*, 1912, and subsequent amendments; the *Administration of Estates Act*, 1913; the *Insolvency Act*, 1916; the *Housing Act*, 1920; the *Provisions of Homes (Municipal) Ordinance*, 1920; the *Death Duties Act*, 1922, and the *Defence Endowment Property and Account Act*, 1922. By the *South-West Africa Affairs Act*, 1922, the records of the Registry relating to land at Walvis Bay were transferred to the Deeds Registry at Windhoek. By the *Co-operative Societies Act*, 1922, provision was made for the transfer of co-operative companies registered under the *Companies Act*, 1892, to the office of the Registrar of Co-operative Societies.

The following tables (*a*), (*b*), and (*c*), give particulars regarding all registrations effected during a series of years, and of the value of land transferred and mortgage bonds passed and cancelled, the amount of the nominal capital of joint-stock companies registered, and the revenue derived by way of fees and duty during the same period :—

DEEDS REGISTRY AT CAPE TOWN, 1919 TO 1924.

(*a*) DEEDS REGISTERED.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
Deeds of Transfer registered..	14,073	17,673	10,853	9,945	10,988	11,651
Certificates of Registered Title	15	6	31	57	63	85
Deeds of Grant.....	271	184	405	589	486	182
Deeds of Grant under the *Glen Grey Act*, No. 25 of 1894....	—	6	217	98	130	548
Mortgage Bonds registered.....	6,995	8,678	8,053	7,662	8,296	8,197
Mortgage Bonds cancelled.....	7,659	7,952	5,449	4,699	5,856	5,964
Notarial Bonds registered.....	504	571	822	742	669	622
Antenuptial Contracts registered	1,341	1,413	1,322	1,326	1,359	1,458
Servitudes registered.....	141	114	105	95	94	148
Companies registered.....	169	182	128	144	151	134
Sundry registrations.....	4,637	7,481	538	451	516	622
TOTAL REGISTRATIONS	35,805	44,260	27,923	25,808	28,608	29,611

(*b*) VALUE OF DEEDS REGISTERED.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Value of Property transferred..	13,629,211	20,131,319	12,443,402	9,692,690	8,664,545	9,510,002
Value of Bonds registered (immovable property).....	9,261,052	12,360,852	12,525,052	9,209,954	9,958,015	10,606,908
Value of Bonds cancelled (immovable property).....	6,540,164	7,200,115	5,494,327	4,493,465	5,250,015	6,461,726
Companies registered—Nominal Capital.....	3,358,460	12,151,615	6,522,925	2,803,751	3,662,540	4,582,221
TOTAL VALUE..... £	32,788,887	51,843,901	36,985,706	26,199,860	27,535,115	31,160,857

(c) REVENUE.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Fees of Office.....	21,919	25,317	20,268	18,955	20,430	21,798
Stamp Duty on Transfers.....	38,323	50,803	30,739	23,604	25,319	30,541
Stamp Duty on Bonds.....	14,320	21,896	20,800	14,292	14,772	12,914
TOTAL REVENUE.....£	74,562	98,016	71,807	56,851	60,521	65,253

(ii) *Deeds Registry at King William's Town.*—This Registry was established by Proclamation, signed by Sir George Grey as High Commissioner on the 24th July, 1858, and was kept in force by Section 16 of the *British Kaffraria Incorporation and Parliamentary Representation Amendment Act*, 1865, and by section 1 of the *Deeds Registries Act*, 1918.

The following table gives the value of landed property transferred at the Registry at King William's Town during a series of years :—

DEEDS REGISTRY, KING WILLIAM'S TOWN—VALUE OF DEEDS REGISTERED, 1913 TO 1924.

Year.	Deeds of Transfer.	Mortgage Bonds.	Bonds Cancelled.
	£	£	£
1913.....	455,407	314,204	262,833
1914.....	479,418	283,542	194,917
1918.....	758,614	397,352	369,155
1919.....	1,355,309	643,571	447,487
1920.....	1,827,754	842,211	441,349
1921.....	746,744	774,635	308,556
1922.....	796,574	558,440	341,803
1923.....	901,998	623,014	393,127
1924.....	838,820	622,659	336,630

(iii) *Deeds Registry at Kimberley.*—This Registry was brought into being by Government Notice No. 28 of the 4th July, 1872, issued by the Governor, Sir Henry Barkly, provision being made therein for the appointment of a Registrar of Deeds and for the registration of certain classes of deeds; and has remained effective by virtue of the provisions of Section 27 of the *Griqualand West Annexation Act*, 1877, and Act No. 13 of 1918 (Union).

The following table gives the value of landed property transferred at the Registry at Kimberley during a series of years :—

LANDED PROPERTY TRANSFERRED, DEEDS REGISTRY, KIMBERLEY, 1912 TO 1924.

Year.	Value.	Year.	Value.
	£		£
1912.....	304,788	1919.....	550,460
1913.....	292,238	1920.....	620,804
1914.....	222,120	1921.....	559,490
1915.....	143,602	1922.....	212,151*
1916.....	205,790	1923.....	279,042
1917.....	261,174	1924.....	233,412
1918.....	291,844		

* Decrease attributed to prolonged drought and cessation of diamond-mining operations during the year.

(iv) *Deeds Registry at Vryburg.*—The appointment of a Registrar of Deeds at Vryburg was provided for by *British Bechuanaland Proclamation* No. 66 of 1889, and the system of registration of the Deeds Registry there established was maintained by Section 19 of the *British Bechuanaland Annexation Act*, 1895, for a period of five years. It now, however, depends for its existence and present system of registration on the *Deeds Registries Act*, 1918.

The following table gives the value of landed property transferred at the Registry at Vryburg during a series of years :—

LANDED PROPERTY TRANSFERRED, DEEDS REGISTRY, VRYBURG, 1912 TO 1924.

Year.	Value.	Year.	Value.
	£		£
1912	311,626	1919	363,530
1913	465,494	1920	690,228
1914	257,350	1921	313,458
1915	112,594	1922	289,880
1916	168,841	1923	161,243
1917	181,544	1924	225,419
1918	239,754		

2. **Deeds Registry in Natal.**—*The Deeds Registry Office* in Natal was created by Ordinance No. 2 of 1846, power being given to the Governor of Natal to appoint a Registrar of Deeds. In 1846 an amending Ordinance, No. 33, was passed. The first-named Ordinance defines the duties of the Registrar of Deeds and declares that the practice of the Deeds Registry Office at Cape Town should be that to be followed in the Natal Office. By Law No. 16, 1875, further detailed instructions as to the examination of certain deeds were laid down. A further Law, No. 19 of 1884, to amend the Law and practice of registration was passed, which provides for the promulgation of rules and deals with the registration of leases. Though the practice was founded on that of the Cape of Good Hope it differs therefrom, in minor respects, owing to the difficulty in the early days of ascertaining definite information on the subject and by reason of local legislation and decisions of the Natal Court. The Registry is now governed by the *Deeds Registries Act*, 1918.

Transfer duty is chargeable in respect of freehold property under Laws Nos. 5, 1860, and 19, 1883 (Natal), and Act No. 11, 1913, and in respect of leases under Law No. 19, 1884 (Natal) and Act No. 11, 1913.

Since the constitution of the Union, considerable changes have taken place in the work performed by the Natal Office. In 1911 the collection of transfer duty was undertaken by the Receiver of Revenue, Pietermaritzburg, and the issue of joint stock companies' and conveyancers' licences was transferred to the same office. In 1918 the registration of wills was transferred to the office of the Master of the Supreme Court, Pietermaritzburg, in terms of Act No. 24, 1913, and all wills proved and sealed wills between 1869 and 1913 were transferred to that office. In 1917, the registration of designs, copyrights in books, and works of art and play rights was transferred to Pretoria, together with all registers and records. Under Act No. 28 of 1922 co-operative societies ceased to be registered under Law No. 10 of 1864 and all existing societies had to re-register with the Registrar of Co-operative Societies within six months from the 14th August, 1922.

The following tables give the number of transactions entered at the Natal Deeds Registry, and the value of transfers, etc., passed during a series of years.

(i) **DEEDS REGISTRY, NATAL—TRANSACTIONS ENTERED, 1920 TO 1924.**

Description.	1920.	1921.	1922.	1923.	1924.
Deeds of Transfer	5,972	4,945	4,853	4,972	5,422
Deeds of Grant	260	164	192	177	238
Mortgage Bonds	3,130	2,985	3,430	3,964	4,122
Cancellations of Mortgage Bonds	2,697	2,034	2,071	2,342	2,469
Notarial Bonds	795	795	865	871	784
Cancellations of Notarial Bonds	633	404	356	361	429
Leases and Cessions of Leases	438	332	256	178	228
Marriage Contracts	4,208	3,719	3,716	3,940	4,195
Joint Stock Companies	91	66	64	66	92
Servitudes other than Leases	56	92	62	74	54
Letters of Exemption (Natives)	68	72	71	79	87
Special Partnerships	3	5	4	1	2
Firms Registered and Changes in Registered Firms	828	740	862	899	901
Declarations of Sale and Purchase	6,020	5,162	4,956	5,026	5,366
Agricultural Societies	1	3	3	1	3
Prospecting Contracts	7	2	2	8	2
Miscellaneous and Sundry Registrations	1,958	2,121	2,602	2,484	2,544
TOTAL TRANSACTIONS	27,165	23,641	24,365	25,443	26,938

(ii) DEEDS REGISTRY, NATAL—VALUE OF TRANSFERS, ETC., 1919 TO 1924.

DESCRIPTION.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Value of property transferred—						
Farm	2,867,362	4,050,294	2,889,726	2,244,288	2,371,108	2,807,666
Town	2,556,614	2,277,222	2,333,236	2,130,447	2,564,450	2,489,519
Bonds passed over immovable property	2,531,423	3,987,901	4,115,025	3,902,022	4,885,843	4,034,818
Bonds passed over movable property	1,013,631	1,524,221	2,366,628	1,011,457	1,572,105	646,307
Bonds cancelled over immovable property	1,871,193	2,623,372	2,138,660	2,166,290	2,653,932	2,388,691
Bonds cancelled over movable property	552,975	855,238	1,042,467	676,234	798,827	794,881
Liability transferred under Mortgage Bond	*	*	250,594	336,726	393,511	387,493
TOTAL VALUE.....£	11,393,198	15,318,748	15,136,333	12,467,464	15,239,776	13,549,375

* No record.

3. **Deeds Registry in Transvaal.**—A Deeds Office for the South African Republic was established in Pretoria by Ordinance No. 3 of 1866. Prior to that Ordinance coming into operation deeds of transfer, bonds, and documents of a similar nature were signed and registered by the landdrosts of the various districts, but there was no central registry. The Ordinance was amended by Law No. 8 of 1880. A further amending Law, No. 5 of 1882, was enacted. That Law and certain other laws and *Volksraad Resolutions*, having reference to the Deeds Office and deeds and documents registered therein, were repealed by Proclamation No. 10 of 1902, which made new provisions regulating the Deeds Office and amended the laws relating to the registration of deeds. The Proclamation of 1902 was amended and amplified by Ordinance No. 65 of 1903, whilst the registration of prospecting contracts was dealt with by Ordinance No. 11 of 1904. The establishment of townships and the registration of lots therein were provided for by Act No. 33 of 1907 and amended by Act No. 34 of 1908. Act No. 25 of 1909 consolidated and amended the law regulating the Deeds Office and Mining Titles Registration Office and relating to the registration of deeds and mining titles. The final consolidating measure was the Union Act No. 13 of 1918 which is applicable to all the Provinces.

While Proclamation No. 8 of 1902 (the *Transfer Duty Proclamation*) had provided for the registration in the Deeds Office of lots in leasehold townships, Proclamation No. 35 of 1902 (amended by Ordinance No. 6 of 1902) established at Johannesburg an office for the registration, *inter alia*, of leases of lots in townships within the Mining District of Johannesburg (see below). Thus the Deeds Office, which had not included the registration of mining rights and stands, was precluded from registering leasehold lots in townships within the prescribed area. By the *Townships Amendment Act* of 1908, the freehold of lots in townships within the Mining Districts of Johannesburg, Boksburg, Germiston, and Krugersdorp became registrable either in the Deeds Office or in the Office of the Rand Townships Registrar, who is one and the same person as the Registrar of Mining Rights (now Registrar of Mining Titles). The Deeds and Mining Titles Offices were directed by the law to inform each other of transactions within the prescribed area, and thus a system of dual registration was established. Johannesburg obtained the convenience of local registration whilst the value of the Deeds Office was not impaired. Mortgage bonds upon such property, passed before the Rand Townships Registrar, which contain a "General Clause," are specially re-registered in the Deeds Office. The Deeds Office therefore at present contains a complete record of the ownership of all land and of all hypothecations or other encumbrances of such land, but it contains no record of leases of lots in townships within the mining district of Johannesburg, nor of mining titles (other than mijnpachts) nor stand titles issued under the Gold Law anywhere in the Province. Act No. 13 of 1918 is the principal law regulating the Deeds Office of the Transvaal. New regulations relative to the registration of titles and other deeds in the several Deeds Registries of the Union have been framed and came into force on the 1st January, 1923.

Various Acts, such as the *Irrigation Act*, the *Administration of Estates Act*, the *Land Bank Act*, *Fencing and Dipping Tank Acts*, and the *Insolvency Act*, impose duties upon the Registrar of Deeds or govern certain practices of his office.

The Registrar of Deeds has also, since 1904, been Registrar of Deeds for Swaziland.

A statement is appended showing the number of deeds registered, value of properties transferred, bonds passed, transfer duty and stamp duty in connection therewith, and fees of office for a series of years. Some of the figures are approximate only, and, moreover, it must be remembered that the figures as to transfers and bonds include certain transfers and bonds passed and bonds cancelled by the Rand Townships Registrar.

DEEDS REGISTERED IN TRANSVAAL, 1919 TO 1924.

(*a*) NUMBER.

DESCRIPTION.	1919.	1920.	1921.	1922.	1923.	1924.
Transfers and various certificates of title	15,803	17,211	14,042	13,097	12,364	11,936
Deeds of grant	349	404	340	252	328	458
Bonds passed	8,304	8,918	10,253	10,783	10,835	9,253
Bonds cancelled and part-payments	4,339	5,048	3,963	3,885	4,325	4,368
Contracts, leases, and powers of attorney	5,112	5,948	4,518	3,450	3,343	3,344
TOTAL REGISTRATIONS	33,907	37,529	33,116	31,467	31,195	30,059

(*b*) VALUE.

DESCRIPTION.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Transfers and various certificates of title	9,987,954	8,863,538	7,714,836	6,806,494	7,835,169	7,875,724
Deeds of grant	52,432	80,966	69,726	42,192	143,584	107,026
Bonds passed	11,522,470	10,891,263	13,659,414	19,708,733*	16,663,941†	11,631,344
Bonds cancelled and part-payments	3,026,530	4,763,825	5,476,330	3,369,833	4,828,016	6,840,216
TOTAL VALUE.....£	24,589,386	24,599,592	26,920,306	29,927,252	29,470,710	26,454,310

NOTE.—(1) Total amount of transfer duty, 1924..... £176,364
(2) Amount of stamp duty levied on deeds registered, 1924..... £23,940
(3) Amount of fees, 1924..... £14,755

* Increase largely explained by the fact that bonds for £10,461,222 represent additional security, and rearrangement of existing bonds by companies to trustees for debenture holders.
† Including collateral and surety bonds.

Mining Titles and Rand Townships Registration Offices, Johannesburg.—These offices form a branch of the Mines and Industries Department, and were originally established in Johannesburg by Proclamation No. 35 of 1902 under the name of "The Registration of Mining Rights Office." The office was created for the purpose of regularizing, and centralizing in Johannesburg, the registration of mining rights and stands granted under the laws dealing with the exploitation of precious stones, precious and base metals, and minerals in the Transvaal, and the registration of such leasehold stands or lots as were situated in the Mining District of Johannesburg, and also for the registration of transfers, mortgage bonds, and other transactions affecting such rights and stands.

Prior to that Proclamation the registration of mining rights and stands had been effected in the office of the Mining Commissioner of the mining district in which they were situated, the Transvaal at that period being divided into the Mining Districts of Johannesburg,

Heidelberg, Krugersdorp, Boksburg, Pietersburg, Barberton, Pilgrims Rest, Ottoshoop, and Pretoria. By Proclamation No. 14 of 1923, the Mining Districts of Johannesburg, Boksburg, and Krugersdorp were amalgamated and became known as the Johannesburg Mining District as and from the 1st February, 1923.

By the *Mining Titles Registration Act*, No. 29 of 1908, the Proclamation and the amending Ordinances Nos. 6 of 1902 and 6 of 1903 were repealed, saving, however, that its provisions, as amended, and the regulations thereunder continue in force in so far as they relate to matters connected with or incidental to these stands or leasehold lots in townships for which freehold title may be obtained under the *Townships Amendment Act*, No. 34 of 1908, *until such title is so obtained*. One of the effects of Act No. 29 of 1908 and the *Townships Amendment Act*, No. 34 of 1908, was to divide the "Registration of Mining Rights Office," formerly under the control of an officer styled the "Registrar of Mining Rights," into "The Mining Titles Registration Office" and "The Rand Townships Registration Office" under the control respectively of a Registrar of Mining Titles and a Rand Townships Registrar. Both posts are occupied by one and the same person as the duties are more or less inseparable.

Under the *Townships Amendment Act*, No. 34 of 1908, as amended by Act No. 30 of 1909, the work in the townships section of the office was considerably increased, chiefly as the result of those provisions relating to the conversion into freehold of stands or lots in Government, semi-Government, and privately owned leasehold townships, and the establishment of a system of dual registration in the Rand Townships Office and the Pretoria Deeds Registry of freehold lots in townships situate within the Mining Districts of Johannesburg, Boksburg, and Krugersdorp.

Practically 98 per cent. of the entire examination and registration of transactions affecting freehold lots is carried to completion in the Rand Townships Office, and it is incumbent on the Registrar to notify the Pretoria Registry of all such transactions.

Act No. 29 of 1908 came into force on the 1st January, 1909, the date of the commencement of the *Precious and Base Metals Act*, No. 35 of 1908, but it endured only until the 1st of September of that year, when it was partially repealed by Act No. 25 of 1909.

The expressed purpose of the latter Act was to consolidate and amend the law regulating the Deeds Office and Mining Titles Registration Office and relating to the registration of deeds and mining titles, but this Act, in part, was repealed by the *Deeds Registries Act*, No. 13 of 1918, which now governs the registration of deeds in all the Deeds Registries within the Union, subject to the following exceptions:—

(*a*) Deeds relating to stands or lots (until their conversion into freehold) situated in Government, semi-Government, and privately owned leasehold townships in the Mining Districts of Johannesburg, Boksburg, and Krugersdorp (now the Johannesburg Mining District), the registration of which is effected solely by the Rand Townships Registrar.

(*b*) Deeds relating to all mining titles, as defined in Act No. 25 of 1909, and the various rights granted under the laws dealing with the exploitation in the Transvaal Province of precious and base metals and minerals, the registration whereof is done by the Registrar of Mining Titles (see definition of "Deeds Registry" in Act No. 13 of 1918).

A statement is appended showing the number of deeds registered, the value of properties transferred, bonds passed, etc., and stamp duty and fees of office collected in connexion therewith by the Mining Titles and Rand Townships Registration Offices, Johannesburg, during each of the calendar years 1919 to 1924.

DEEDS REGISTERED IN THE OFFICE OF THE REGISTRAR OF MINING TITLES AND RAND TOWNSHIPS REGISTRAR, JOHANNESBURG, 1919 TO 1924.

(*a*) NUMBER.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
Transfers and various certificates of title	8,345	8,060	6,282	5,547	5,713	5,562
Deeds of grant	148	112	139	98	78	151
Bonds passed	4,757	4,748	4,326	4,671	5,102	4,696
Bonds cancelled and part-payments	3,557	3,963	3,531	3,547	4,326	3,993
Cessions of bonds	201	305	337	388	532	471
Contracts, leases, powers of attorney, etc	839	805	1,281	1,165	1,288	1,232
TOTAL	17,847	17,993	15,896	15,416	17,039	16,105

(*b*) VALUE.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Transfers and various certificates of title	5,793,999	7,243,121	4,847,500	4,388,869	4,636,503	7,961,874
Deeds of grant	8,211	11,833	27,875	22,296	6,620	16,895
Bonds passed	4,092,797	5,043,092	4,320,991	4,492,241	7,896,948	4,805,519
Bonds cancelled and part-payments	2,588,925	2,592,608	3,328,623	2,906,062	2,377,982	9,284,113
Cessions of bonds	211,663	304,696	354,742	445,532	636,921	509,210
Contracts, leases, powers of attorney, etc	34,890	3,522	144,283	167,884	594,673	201,221
TOTAL £	12,730,485	15,198,872	13,024,014	12,422,884	16,149,647	22,778,832

Amount of stamp duty for the year 1924 ..... £27,333
Amount of fees for the year 1924 ..... £9,020

4. **Deeds Registry in Orange Free State.**—The records of the Orange Free State Deeds Office extend back to the early part of the year 1849, the period of the Orange River Sovereignty. The office was established by the British Resident at the time, and was administered according to the law of the Colony of the Cape of Good Hope. The first legislative enactment establishing a Deeds Office for the Orange Free State was Ordinance No. 5 of 1856, which was passed shortly after the reinstitution of Republican Government. This Ordinance was partly amended by Ordinances Nos. 16 of 1877 and 1 of 1888, and was finally superseded, on the codification of the laws of the State, by Chapter LVII of the Orange Free State Law Book. This was again repealed by Ordinance No. 33 of 1902, which was modified and supplemented by Ordinances Nos. 11 and 20 of 1904. The registration of antenuptial contracts was provided for by Law No. 7 of 1892. These enactments were wholly repealed by the Union *Deeds Registries Act*, No. 13 of 1918, which, with the regulations made thereunder and published in Government Notice No. 1500 of 1918, is now in force

The registration of companies was placed under the supervision of the Registrar of Deeds by Ordinance No. 5 of 1878, which was supplemented by Ordinance No. 9 of 1883. These Ordinances were subsequently superseded by Chapter C of the Orange Free State Law Book, which, amended and amplified by Ordinance No. 24 of 1904, remains the law of the Province. The liquidation of companies is governed by Law No. 2 of 1892, and the registration of insurance companies, which was formerly governed by Chapter CIII of the Law Book, is now regulated by the provisions of the *Insurance Act*, No. 37 of 1923. The registration of agricultural and other co-operative societies is controlled by Act No. 28 of 1922, which superseded the Orange Free State *Co-operative Agricultural Societies Act*, No. 1 of 1910.

By Chapter CXII of the Law Book, provision was made for the registration of Letters Patent in the Deeds Office. This law was repealed by Act No. 9 of 1916, under the provisions of which the registration of Letters Patent was transferred to the Union Patent Office, Pretoria.

By Chapter CXIII of the Law Book the registration of trade marks was placed under the Registrar of Deeds. This law, as amended by Law No. 13 of 1893, was repealed by Act No. 9 of 1916, under the provisions of which the registration of trade marks was transferred to the Trade Marks Office, Pretoria, and the records of the office relating to patents and trade marks were handed over to that office.

The subjoined tables show the number of deeds and other matters registered, the value of property transferred, the amounts of bonds passed and cancelled, and also the total amounts collected in connection with deeds and other matters registered during a series of years.

DEEDS REGISTERED IN ORANGE FREE STATE, 1919 TO 1924.

(*a*) NUMBER.

DESCRIPTION.	1919.	1920.	1921.	1922.	1923.	1924.
Transfers, partitions, certificates of title	6,568	8,830	4,802	4,572	4,769	4,942
Deeds of grant	63	15	18	11	18	17
Bonds passed	3,599	4,950	4,967	4,712	4,197	4,150
Bonds cancelled and part-payments	4,495	4,916	2,640	2,947	3,417	3,524
Others	5,234	6,152	5,974	6,659	7,139	7,869
TOTAL REGISTRATIONS	19,959	24,863	18,401	18,901	19,540	20,502

(*b*) VALUE.

DESCRIPTION.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Transfers, partitions, certificates of title; Deeds of grant	6,958,127	9,763,330	5,010,930	5,869,189	4,630,993	4,556,161
Bonds passed	4,352,909	5,908,487	4,664,798	4,127,233	6,083,681	3,734,454
Bonds cancelled and part-payments	2,914,314	3,587,458	1,653,360	2,601,840	3,336,439	2,872,243
TOTAL VALUE.....£	14,225,350	19,259,275	11,329,088	12,598,262	14,051,113	11,162,858

NOTE.—(1) Total amount of transfer duty, 1910 to 1924..... £1,072,925
(2) Amount of stamp duty levied on deeds registered, 1910 to 1924 £238,314*
(3) Amount of fees levied, 1910 to 1924..... £88,286†

5. **Scale of Fees.**—During its Session of 1918 the Union Parliament passed an Act to consolidate and amend the laws in force in the Union, relating to the registration of deeds, No. 13 of 1918, termed the *Deeds Registries Act*, 1918, the provisions of which and the regulations thereunder, came into operation on the 1st January, 1919.

By this Act a number of previous enactments in the several Provinces were repealed wholly or in part, and under the regulations a uniform practice as far as possible was provided for in all Provinces, together with (A) a uniform tariff of fees of office as well as (B) a uniform tariff of fees and charges of conveyancers and notaries public. Those regulations have now been superseded by new and amended rules, which were published under Government Notice No. 1630 of 1922. A copy of the revised tariffs was given in the sixth issue of this *Year Book*, to which reference should be made for information on this subject.

§ 4. Valuation of Property.—Cape of Good Hope.

1. **First Quinquennial Valuation.**—The subjoined table gives the result of the first complete quinquennial valuation of immovable property in the Cape of Good Hope Province (inclusive of the Transkeian Territories), undertaken in terms of Ordinance No. 7 of 1914 and *interim* general valuations framed under Ordinance No. 5 of 1922, and shows, by divisions, the number of properties, the site values, the values of buildings and beneficial improvements, the total valuation, and the rateable values in each case. The figures are corrected up to April, 1924. A *division* is defined by the Ordinance as a rural or divisional council area, including any municipality or village management board area therein, and where there is no rural or divisional council area, a magisterial district or such magisterial districts as may be combined for the purposes of the Ordinance by the Administrator. *Site values* are determined, according to a prescribed procedure, by the ordinary price which a buyer will be willing to give and a seller to accept if the land to be valued were brought at the time of valuation to voluntary sale. The basis of the valuation of *buildings* is the estimated cost of erection at the time of valuation, allowance being made for structural and other depreciation. By *beneficial improvements* are meant those " which increase the value of the land for agricultural purposes, and include structural works, dipping and storage tanks, kraals, fences, irrigation works, dams, boreholes, stables, etc., but not residential buildings."

* An amount of £1,713, being company capital duty and annual dues of foreign companies, has not been included in this amount.
† An amount of £32, being fees levied on companies as office fees, has not been included in this amount.

VALUATION OF IMMOVABLE PROPERTY, CAPE OF GOOD HOPE PROVINCE (INCLUDING TRANSKEIAN TERRITORIES).

NUMBER OF PROPERTIES AND ACTUAL VALUES.

Division.	Number of Properties.	Site Value.	Buildings.	Beneficial Improvements.	Total Valuation.	Rateable Value.
CAPE OF GOOD HOPE.		£	£	£	£	£
EAST CENTRAL—						
Albany	3,080	1,202,910	1,149,110	256,517	2,608,537	2,377,633
Bedford	525	859,366	203,739	151,064	1,214,169	1,063,204
Cradock	1,288	1,107,383	557,775	409,294	2,074,452	1,677,212
Fort Beaufort	2,046	680,514	389,064	69,218	1,138,796	1,077,426
Graaff-Reinet	1,378	760,906	638,952	290,190	1,690,048	1,409,563
Jansenville	861	552,830	184,060	190,863	927,753	737,698
Maraisburg	426	378,548	91,771	53,050	523,369	473,065
Middelburg	1,002	621,757	355,509	257,988	1,235,254	982,355
Pearston	527	409,921	102,470	68,472	580,863	513,047
Somerset East	1,075	1,163,047	470,132	470,398	2,103,577	1,638,140
Steynsburg	717	394,152	154,679	70,977	619,808	555,435
Steytlerville	877	477,577	145,174	101,901	724,652	625,412
Tarka	576	871,182	209,647	187,812	1,268,641	1,082,791
TOTAL	14,378	9,480,093	4,652,082	2,577,744	16,709,919	14,212,981
EASTERN—						
Cathcart	542	843,015	191,649	230,621	1,265,285	1,034,694
East London	5,741	2,659,859	3,829,870	123,076	6,612,805	6,511,125
Glen Grey	235	139,298	112,196	39,807	291,301	253,450
King William's Town	6,579	2,401,154	1,093,075	202,773	3,697,002	3,530,424
Komgha	650	488,341	86,308	61,681	636,330	576,691
Peddie	1,100	282,576	115,892	78,664	477,132	398,563
Queenstown	4,082	1,638,696	1,294,765	452,291	3,385,752	2,957,377
Stockenstrom	668	346,222	96,326	132,654	575,202	443,656
Stutterheim	1,374	860,633	196,838	158,366	1,215,837	1,059,178
Victoria East	2,200	373,206	191,722	66,293	631,221	565,488
TOTAL	23,171	10,033,000	7,208,641	1,546,226	18,787,867	17,330,646
GRIQUALAND WEST—						
Barkly West	1,648	858,764	231,367	124,629	1,214,760	1,095,564
Hay	1,302	750,534	136,588	155,296	1,042,418	894,075
Herbert	852	574,023	131,994	177,318	883,335	707,140
Kimberley	5,588	1,144,904	3,188,672	219,649	4,553,225	4,416,676
TOTAL	9,390	3,328,225	3,688,621	676,892	7,693,738	7,113,455
NORTH CENTRAL—						
Britstown	1,212	485,447	335,942	256,000	1,077,389	831,205
Colesberg	689	771,313	400,713	267,346	1,439,372	1,183,378
Hope Town	954	464,933	138,739	99,386	703,058	612,747
Philipstown	1,377	642,971	182,165	146,747	971,883	836,348
Prieska	759	715,859	185,746	143,332	1,044,937	911,226
TOTAL	4,991	3,080,523	1,243,305	912,811	5,236,639	4,374,904
NORTH-EASTERN—						
Albert	1,356	871,341	497,314	361,378	1,730,033	1,378,436
Aliwal North	1,531	1,126,011	616,269	270,795	2,013,075	1,771,726
Barkly East	1,000	1,046,379	283,670	237,803	1,567,852	1,338,188
Elliot	969	672,712	191,827	198,103	1,062,642	870,752
Herschel	83	11,110	29,330	—	40,440	40,440
Maclear	959	624,454	194,440	118,569	937,643	819,274
Molteno	569	561,462	228,808	84,235	874,505	794,812
Wodehouse	1,616	1,287,640	420,230	307,185	2,015,055	1,732,781
TOTAL	8,083	6,201,109	2,461,888	1,578,068	10,241,245	8,746,409

NUMBER OF PROPERTIES AND ACTUAL VALUES—*continued.*

Division.	Number of Properties.	Site Value.	Buildings.	Beneficial Improvements.	Total Valuation.	Rateable Value.
		£	£	£	£	£
NORTH-WESTERN—						
Calvinia.....	1,739	1,448,269	277,976	122,147	1,848,392	1,730,480
Carnarvon.....	974	624,342	198,178	150,033	972,553	828,768
Ceres.....	725	568,088	271,108	109,861	949,057	841,116
Clanwilliam.....	662	384,501	134,893	125,885	645,279	519,784
Fraserburg.....	971	1,060,691	226,951	215,413	1,503,055	1,296,136
Kenhardt.....	845	895,845	162,528	192,920	1,251,293	1,061,448
Laingsburg.....	536	309,575	165,458	94,359	569,392	475,033
Namaqualand....	1,368	1,056,407	302,221	365,228*	1,723,856	1,533,611
Sutherland.....	423	364,108	83,543	57,702	505,353	453,046
Van Rhynsdorp..	704	355,957	82,321	46,430	484,708	439,675
TOTAL.....	8,947	7,067,783	1,905,177	1,479,978	10,452,938	9,179,097
SOUTH-EASTERN—						
Alexandria.....	643	361,966	106,967	86,604	555,537	470,432
Bathurst.....	1,282	432,017	277,958	109,561	819,536	711,596
Humansdorp.....	2,457	677,646	298,316	111,161	1,087,123	978,869
Port Elizabeth...	7,200	2,184,626	5,637,515	69,138	7,891,279	7,878,603
Uitenhage.....	2,330	1,270,210	1,020,273	568,457	2,858,940	2,291,163
TOTAL ..	13,912	4,926,465	7,341,029	944,921	13,212,415	12,330,663
SOUTH-WESTERN—						
Bredasdorp.....	1,257	751,640	251,283	121,247	1,124,170	1,006,419
Caledon.....	2,135	1,757,259	710,178	256,150	2,723,587	2,483,945
Calitzdorp.....	833	547,109	198,209	347,452	1,092,770	745,724
George.....	1,562	475,467	333,233	151,832	960,532	821,004
Knysna.....	950	779,448	173,075	72,300	1,024,823	995,923
Ladismith.....	1,038	524,062	264,492	456,329	1,244,883	788,784
Montagu.....	751	286,813	250,161	213,117	750,091	561,342
Mossel Bay.....	1,151	1,018,816	530,402	255,212	1,804,430	1,754,032
Oudtshoorn.....	3,366	1,955,861	1,125,109	719,062	3,800,032	3,116,081
Riversdale.....	2,340	877,063	323,561	285,319	1,485,943	1,356,250
Robertson.....	1,213	778,427	452,686	630,282	1,861,395	1,308,841
Swellendam.....	2,405	1,163,815	470,756	462,738	2,097,309	1,865,191
Uniondale.....	1,035	544,375	200,425	85,160	829,960	747,620
Worcester.....	1,268	932,755	617,973	568,985	2,119,713	1,663,081
TOTAL.....	21,304	12,392,910	5,901,543	4,625,185	22,919,638	19,214,237
WEST CENTRAL—						
Aberdeen.....	859	559,956	256,422	271,440	1,087,818	819,430
Beaufort West...	1,492	860,895	574,731	304,835	1,740,461	1,477,334
Hanover.....	577	382,527	128,380	115,991	626,898	525,562
Murraysburg.....	453	402,606	141,729	84,723	629,058	546,913
Prince Albert....	755	474,967	219,494	172,326	866,787	698,981
Richmond.....	546	572,733	163,171	114,233	850,137	738,958
Victoria West....	1,179	582,837	330,411	114,500	1,027,748	920,264
Willowmore.....	999	612,174	206,680	246,722	1,065,576	824,631
TOTAL.....	6,860	4,448,695	2,021,018	1,424,770	7,894,483	6,552,073
WESTERN—						
Cape.....	48,211	17,398,851	29,242,698	878,126	47,519,675	47,240,039
Malmesbury.....	2,694	2,525,962	1,156,770	361,820	4,044,552	3,702,165
Paarl.....	3,167	1,363,783	1,760,187	685,270	3,809,240	3,131,433
Piquetberg.....	865	597,152	259,878	195,005	1,052,035	860,361
Stellenbosch.....	2,655	1,199,203	1,984,848	358,416	3,542,467	3,180,103
Tulbagh.....	569	294,475	191,950	64,030	550,455	489,432
TOTAL.....	58,161	23,379,426	34,596,331	2,542,667	60,518,424	58,603,533
TOTAL FOR CAPE PROVINCE (excluding Bechuanaland and Transkeian Territories).....	169,197	84,338,229	71,019,635	18,309,262	173,667,306	157,657,998

* £188,973 represents improvements in connexion with railways.

NUMBER OF PROPERTIES AND ACTUAL VALUES—*continued.*

Division.	Number of Properties.	Site Value.	Buildings.	Beneficial Improvements.	Total Valuation.	Rateable Value.
		£	£	£	£	£
BECHUANALAND—						
Gordonia	1,191	739,848	254,090	190,994	1,184,932	997,477
Kuruman	1,077	586,226	137,380	99,082	822,688	726,579
Mafeking	729	543,198	250,255	282,433	1,075,886	972,806
Vryburg	2,628	1,302,856	363,277	307,765	1,973,898	1,792,729
TOTAL FOR BECHUANALAND	5,625	3,172,128	1,005,002	880,274	5,057,404	4,489,591
TRANSKEIAN TERRITORIES.						
EAST GRIQUALAND—						
Matatiele	663	732,778	220,814	88,870	1,042,462	968,767
Mount Ayliff	80	17,777	46,826	1,668	66,271	66,271
Mount Currie	1,017	918,849	302,555	104,335	1,325,739	1,222,678
Mount Fletcher	118	14,935	31,979	2,155	49,069	48,973
Mount Frere	129	27,506	52,975	9,401	89,882	89,752
Qumbu	126	21,591	31,229	1,107	53,927	53,712
Tsolo	264	42,365	35,973	6,579	84,917	79,667
Umzimkulu	399	495,373	84,970	80,849	661,192	581,147
TOTAL	2,796	2,271,174	807,321	294,964	3,373,459	3,110,967
PONDOLAND—						
Bizana	116	8,042	34,533	1,744	44,319	44,319
Flagstaff	119	9,933	21,590	601	32,124	32,124
Libode	78	8,665	21,217	559	30,441	30,251
Lusikisiki	128	13,043	28,275	1,122	42,440	42,217
Ngqeleni	92	9,895	27,920	1,909	39,724	38,854
Port St. Johns	337	94,678	61,030	7,860	163,568	155,808
Tabankulu	106	9,796	25,658	867	36,321	36,321
TOTAL	976	154,052	220,223	14,662	388,937	379,894
TEMBULAND—						
Elliotdale	76	11,170	31,743	110	43,023	43,023
Engcobo	137	55,100	121,057	8,578	184,735	184,735
Mqanduli	117	23,100	29,985	1,523	54,608	54,608
St. Marks	176	73,351	64,032	2,096	139,479	137,756
Umtata	1,060	198,175	373,779	13,378	585,332	573,254
Xalanga	774	75,411	83,271	31,780	190,462	165,709
TOTAL	2,340	436,307	703,867	57,465	1,197,639	1,159,085
TRANSKEI—						
Butterworth	242	47,922	138,197	9,174	195,293	188,075
Idutywa	239	32,367	89,315	3,102	124,784	124,784
Kentani	110	30,015	45,140	3,516	78,671	76,796
Nqamakwe	77	39,999	47,705	2,890	90,594	90,594
Tsomo	91	27,836	42,493	1,929	72,258	72,243
Willowvale	110	18,623	61,305	2,006	81,934	81,934
TOTAL	869	196,762	424,155	22,617	643,534	634,426
TOTAL FOR TRANSKEIAN TERRITORIES	6,981	3,058,295	2,155,566	389,708	5,603,569	5,284,372
GRAND TOTAL	181,803	90,568,652	74,180,203	19,579,244	184,328,279	167,431,961

CHAPTER XII.

IRRIGATION AND WATER CONSERVATION.

§ 1. Irrigation.

1. **Legislation.**—In the Cape of Good Hope no attempt was made to control questions of water conservation and irrigation until 1906, when an *Irrigation Act* was passed. This law was, however, mostly concerned with questions of administration, and the law of irrigation and water-rights was in the main controlled by the common law based upon the Roman-Dutch law. This had so complicated matters and had created so many vested rights that any drastic departure from common law became impossible. The principle of water conservation was entirely ignored, whereas in a country with large arid and semi-arid tracts this formed the most essential factor of a water law. Except in the Oudtshoorn district of the Cape Province, irrigation, until a few years ago, was a trifling affair, but during recent years irrigation development has taken place on a large scale in parts of the Cape Province having problems of totally different characters, and the old pioneer irrigation districts, such as Oudtshoorn, Worcester, and Stellenbosch, are being rapidly overtaken by other irrigated districts of the Province.

In the Transvaal an *Irrigation Act* was passed in 1908, but irrigation in this Province had not yet greatly developed. The position is similar in the Orange Free State, which contains, especially in its southern portions, considerable possibilities in respect of irrigable areas. The total absence of a water law has, however, hitherto greatly hampered development. Natal, owing to topographical, physical, and climatic conditions, differs somewhat from the other Provinces as regards irrigation, but none the less stood in need of a proper law, as, apart from irrigation, domestic water supplies and the development of water power had necessarily to be controlled.

Subsequent to the constitution of the Union it was not found possible to frame a law approximating even remotely to an ideal water law for the Union, as regard had obviously to be paid to the very large vested interests which had accrued throughout the Union during previous generations. All that could be done was to make the most of the old common law principles, which had controlled the situation previously. Furthermore, it was found that no water law could be framed which would work with mechanical precision and provide a clear and ready solution for every case which might arise. Owing to the conditions of the country water-legislation must of necessity be elastic to a full degree and its practical value necessarily depends on the efficiency of the administrative machinery created by legislation. The Union *Irrigation and Conservation of Waters Act* was passed in 1912. This Act provides first for a national law regulating the use of water in public streams. Further, it provides special judicial machinery, for dealing with the definition of water-rights along public streams, the settlement of disputes, the granting of servitudes and permits and other matters. It also contains a variety of provisions designed to promote the development of irrigation in the Union. In principle the Act is an effort to realize the following main objects :—

(*a*) Preservation, to the fullest extent possible, of all vested rights so far as they are of practical value to riparian owners.

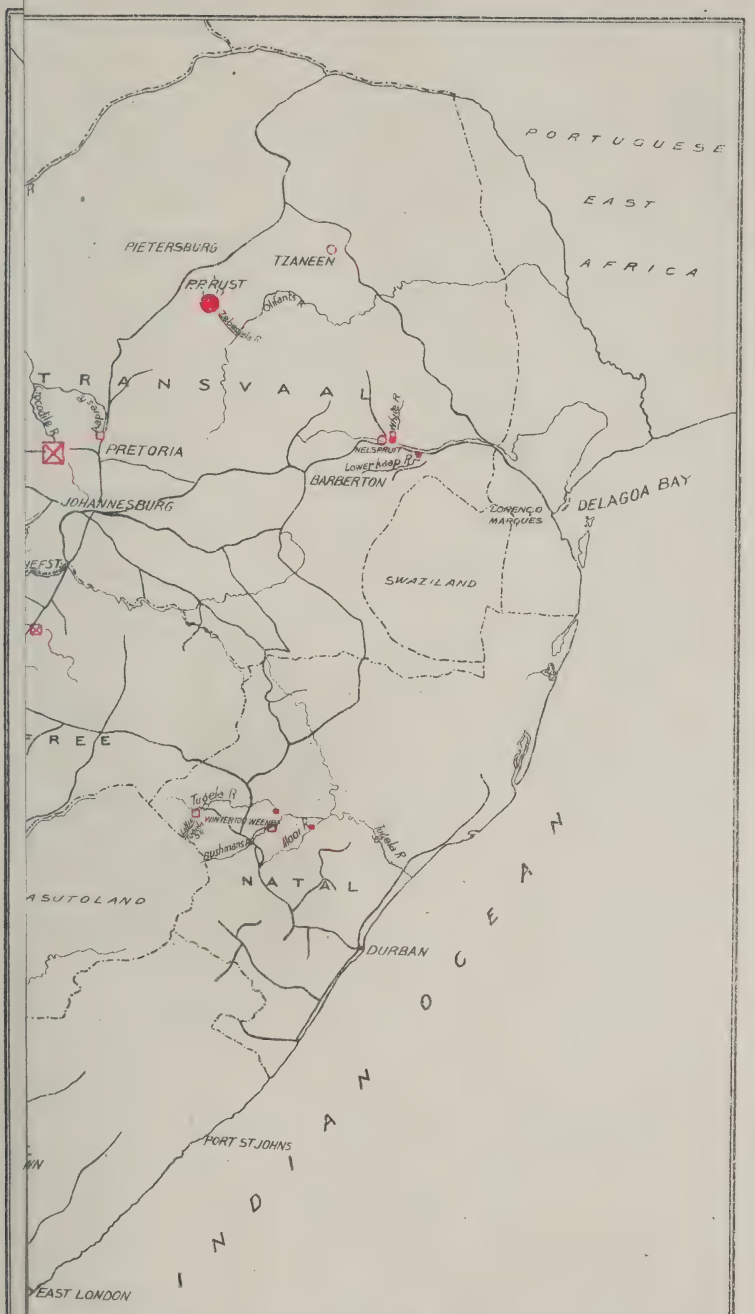
(*b*) Provision for a rational and practical method of effecting an equitable distribution of water flowing in defined channels of a permanent character.

(*c*) Provision of equitable and practical means for the conservation and use of that portion of the flow in South African streams which cannot be immediately and beneficially used and may run to waste.

(*d*) Provision of machinery for bringing these objects into effect.

The subject-matter of the Act is as follows, giving an indication of the scope of the law :—

Chapter I. General control, including provision for hydrographic surveys, preparation of schemes, engineering services, water-boring.
II. Use of public and private water.
III. Use of subterranean water.
IV. Constitution of *Water Courts* and their jurisdiction, powers, and authorities.
V. Constitution of *River Districts* and *Boards*.
VI. Constitution of *Irrigation Districts* and *Boards*.
VII. Expropriation of land and acquisition of servitudes.
VIII. Irrigation loans to private persons and to *Irrigation Boards*.
IX. General and miscellaneous matters relating to right of entry upon land for irrigation purposes, service of notices and documents, exemption of irrigated lands from rates, offences and penalties, etc.



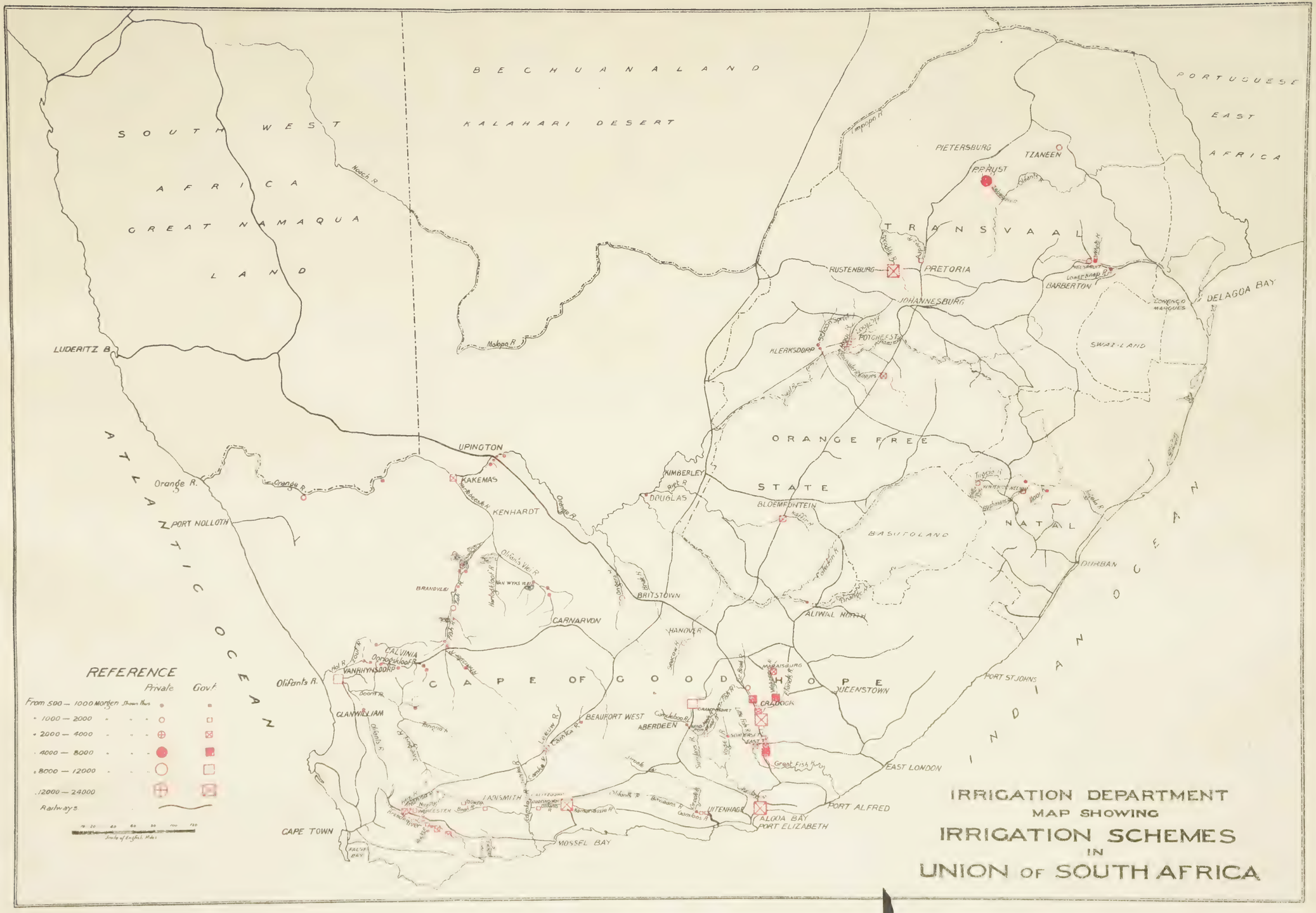
IRRIGATION DEPARTMENT

MAP SHOWING

IRRIGATION SCHEMES

IN

UNION OF SOUTH AFRICA



IRRIGATION DEPARTMENT
MAP SHOWING
IRRIGATION SCHEMES
IN
UNION OF SOUTH AFRICA

Seven sections of regulations have been framed under the law dealing with various matters in detail.

In November, 1923, a Committee, consisting of Mr. Justice van Zijl (Chairman), Water Court Judges Jeppe and Louwrens, and Mr. A. D. Lewis (Director of Irrigation), was appointed by the Government to inquire into and report upon any amendments necessary to the Irrigation Act of 1912, and particularly to sections 15 and 16 thereof, dealing with the construction of works for the storage or diversion of surplus water of public streams and the protection of such works. The report of the Committee was published in April, 1924.

In October, 1924, a Commission known as the Irrigation Finance Commission, consisting of Mr. A. P. J. Fourie, Mr. M. Gadd, Mr. J. Collie, and Mr. R. J. van Reenen, was appointed by Government to report upon (*a*) the financial position of irrigation works financed by Government moneys, (*b*) the measures of relief which might be necessary to place schemes on a sound financial footing; (*c*) the desirability of appointing a Permanent Irrigation Commission to administer and co-ordinate activities in connexion with irrigation schemes.

The Commission issued its first report in March, 1925 (U.G. 29–'25), its second in October (U.G. 44–'25), and is at the present time proceeding with its further investigations.

The following table gives a conspectus of existing Union legislation and regulations relating to irrigation :—

IRRIGATION AND WATER CONSERVATION—LEGISLATION, 1910 TO 1924.

Act.	Regulations.	
	Subject.	Government Notice or Proclamation.
The Irrigation and Conservation of Waters Act, No. 8 of 1912, as amended by Act No. 26 of 1916, Act No. 32 of 1917 (section 112), and Act No. 38 of 1922 (section 6) Water Court Judge Act, No. 2 of 1924	Irrigation and River Boards—	
	General	G.N. No. 1692 of 1912. G.N. No. 870 of 1917. G.N. No. 1271 of 1917.
	Manner in which accounts shall be kept	G.N. No. 458 of 1914.
	Irrigation Loans—	
	General	G.N. No. 1122 of 1912. G.N. No. 998 of 1912. G.N. No. 714 of 1916. G.N. No. 1160 of 1916.
	Overdrafts and short-dated ...	G.N. No. 1387 of 1915.
	Registration of Servitudes—	
	General	G.N. No. 987 of 1913. G.N. No. 603 of 1917.
	Water Courts—	
	Guidance of members in defining or fixing the reasonable use of the normal flow of a public stream by a riparian proprietor	G.N. No. 982 of 1912.
	Procedure	G.N. No. 459 of 1917. G.N. No. 1267 of 1917. G.N. No. 210 of 1918.
Land Settlement Act, No. 12 of 1912, as amended by Act No. 23 of 1917, Act No. 28 of 1920, and Act No. 21 of 1922	—	—
Irrigation Works (Special Loans) Act, No. 18 of 1917	—	—
Hartebeestpoort Irrigation Scheme (Crocodile River) Act, No. 32 of 1914, as amended by Act No. 32 of 1917 and Act No. 23 of 1918	General	G.N. No. 262 of 1922.
Hartebeestpoort Irrigation Scheme (Acquisition of Land) Act, No. 23 of 1918	—	—
Oliphants River Irrigation Works Act, No. 28 of 1917	Allotting of water	G.N. No. 294 of 1923.
Oliphants River (Van Rhynsdorp Canal) Act, No. 5 of 1912	—	—
Mapochs Gronden Water and Commonage Act, No. 40 of 1916	General	G.N. No. 896 of 1919.
Riparian Land (Erven and Commonages) Act, No. 11 of 1919	—	—
Financial Adjustments Act, No. 38 of 1922	—	—
Financial Adjustments Act, No. 35 of 1923	—	—

2. **Administration.**—(i) *Irrigation Department.*—The administration of the *Irrigation Act* is vested in an Irrigation Department under a Director of Irrigation with a staff of engineers and other administrative officers. The principal activities of the department may be summarized as follows :—

(*a*) A special branch of the department is engaged in the systematic collection and compilation of hydrographic data throughout the Union, the chief practical

results being the determination of the absolute run-off of surface drainage from a number of clearly defined typical catchment areas; the relation of such run-off to the rainfall over the catchment; the determination of the maximum intensity of run-off during storms; the gauging of permanent springs, etc.

(*b*) Closely allied to the hydrographic survey as regards the character of its investigations is the meteorological service of the Union, as to which particulars will be found in Chapter I of this *Year Book*.

(*c*) Systematic reconnaissance surveys, together with hydrographic statistics indicate where and how irrigation development can take place, and the carrying out of these surveys is a function of the department hardly less in importance than the collection of hydrographic data. Arising out of these reconnaissance surveys irrigation projects are elaborated; these are either laid before the riparian owners interested with the object of inducing them to form an irrigation district under the Act for the purpose of undertaking the scheme as a co-operative work financed under an irrigation loan, or the project is taken up, if circumstances are favourable, as a Government work and may be constructed by departmental agency.

(*d*) Government irrigation settlements are maintained and to a large extent administered by the Irrigation Department.

(*e*) An elaborate system exists under which bona fide farmers, irrigation boards, and river boards may obtain professional assistance from the department. Such services are charged for at prescribed fees.

An important section of the department is the water-boring branch, the work of which falls into the following main sections :—

(i) Boring for farmers in certain areas of the Union on a scale of charges more or less approximating to the actual cost to the department;

(ii) boring for water on vacant and waterless Crown lands to make such lands fit for settlement; and

(iii) boring for water at school sites, hospitals, gaols, and other similar public institutions.

(*g*) The department acts as the adviser of Provincial Administrations on all matters relating to water supply, drainage, sewerage, or irrigation within the areas controlled by municipalities and public bodies; and it advises and more or less controls irrigation and river boards.

(ii) *Water Courts.*—The Water Court is an institution which was in existence in the Cape for many years, and a similar court was created under the Transvaal Irrigation Act, No. 27 of 1908. In the Union Act the Water Court occupies a stronger and more important position than under the Cape or Transvaal law. A Water Court is constituted by an itinerant Water Court judge as president and two assessors, one of them a competent hydraulic engineer attached to the Irrigation Department, and the other a person selected from a number nominated by the Governor-General for each proclaimed Water Court District. The Union has been divided into twenty-two Water Court Districts for that purpose.

3. **Government Expenditure on Irrigation.**—Particulars are given hereunder as to (i) expenditure on the Department of Irrigation and (ii) irrigation loans for a series of years :—

(i) **IRRIGATION—GOVERNMENT EXPENDITURE, 1919-20 TO 1924-25.**

Heading.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
Expenditure from Loan Funds—	£	£	£	£	£	£
Government Schemes.....	128,415	119,477	242,605	438,988	227,352	179,943
Irrigation Loans.....	295,674	447,554	686,190	640,832	624,537	420,472
Boring on Crown Lands.....	38,825	48,550	33,988	27,141	31,809	38,576
Boring Equipment.....	—	84,798	42,000	—	—	—
Other Boring*.....	—	—	—	37,710	22,482	26,879
TOTAL.....£	462,914	700,379	1,004,783	1,145,001	906,180	665,870
Expenditure from Revenue—						
Irrigation.....	107,512	128,357	123,328	107,954	110,690	123,166
Boring.....	62,248	71,708	75,579	22,719	10,214	14,819
TOTAL.....£	169,760	200,065	198,907	130,673	120,904	137,985
GRAND TOTAL.....£	632,674	900,444	1,203,690	1,275,674	1,027,084	803,855

* During 1922–23 the practice of charging to Loan Funds recoverable expenditure on boring was instituted.

(ii) APPLICATIONS FOR IRRIGATION LOANS, 1910 TO 1924–25.

Year and Area.	Under Consideration at Beginning of Year.		Received during Year.		Granted during Year.		Refused, Withdrawn, or Cancelled during Year.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
(*a*) UNION, 1910 * TO 1924–25.								
		£		£		£		£
*1910.....	34	52,415	73	86,739	41	17,645	27	42,780
*1911.....	39	78,729	64	92,946	33	105,665	43	45,994
†1912–13.....	27	20,016	177	359,576	49	251,990	64	46,517
‡1913–14.....	91	81,085	201	420,000	104	381,894	65	39,078
1914–15.....	123	80,113	130	179,614	47	109,710	204	147,817
1915–16.....	2	2,200	31	73,692	12	60,000	12	10,692
1916–17.....	9	5,200	152	353,813	76	177,075	38	21,838
1917–18.....	47	160,100	80	465,308	51	581,680	39	17,984
1918–19.....	37	25,744	63	1,025,500	33	90,701	33	17,593
1919–20.....	34	942,951	47	496,090	21	862,712	12	4,390
1920–21.....	48	571,939	76	748,003	40	989,970	36	179,822
1921–22.....	48	150,150	64	514,561	26	494,510	34	38,185
1922–23.....	52	132,016	77	373,774	19	200,860	52	32,685
1923–24.....	58	272,245	63	617,097	15	446,617	34	236,110
1924–25.....	72	206,615	75	169,881	21	73,428	70	78,238
(*b*) PROVINCES, 1923–24.								
		£		£		£		£
Cape.....	23	248,490	28	415,806	12	444,017	14	52,675
Natal.....	—	—	—	—	—	—	—	—
Transvaal.....	19	18,825	25	195,835	1	500	13	180,105
Orange Free State	16	4,930	10	5,456	2	2,100	7	3,330
UNION.....	58	272,245	63	617,097	15	446,617	34	236,110
1924–25.								
		£		£		£		£
Cape.....	25	167,604	27	29,410	9	10,942	21	51,512
Natal.....	—	—	3	1,450	—	—	2	750
Transvaal.....	30	34,055	30	134,925	9	61,250	26	20,310
Orange Free State	17	4,956	15	4,096	3	1,236	21	5,666
UNION.....	72	206,615	75	169,881	21	73,428	70	78,238

* Cape of Good Hope only.
† 1st January, 1912, to 31st March, 1913.
‡ Financial Years from 1913–14.

4. **Water-boring.**—The following table gives particulars of boring operations undertaken in the Union since the year 1903–04, when the first boring branch was established in the Transvaal. Prior to the date of the constitution of the Union no figures are available for the other three Provinces. The total number of holes drilled by the department from 1904 to the 31st March, 1925, was 9,884, principally in the Transvaal, the reason being that boring operations were not actively carried out in that Province before 1904, whereas in the other Provinces boring branches had been in existence for many years and a great deal of work had already been done at that date. It is to be noted that the costs of boring for the periods given are not comparable, owing to the varying conditions applying to the different groups of operations.

IRRIGATION DEPARTMENT—WATER-BORING, 1903 TO 1925.

Financial Year.	Number of Drills in Commission.	Number of Applications Received.	Number of Boreholes Completed.	Total Footage Drilled.	Annual Working Cost.			Estimated Yield of Water in 1,000 Gallons per diem.
					From Revenue Vote.	From Loan Vote.	Total.	
					£	£	£	
(a) TRANSVAAL TO 31ST MAY, 1910.*								
1903–04	1	3	1	481	718	—	718	2
1904–05	3	18	24	3,619	4,582	—	4,582	175
1905–06	10	123	78	8,189	12,660	—	12,660	814
1906–07	18	181	143	18,440	22,200	—	22,200	2,843
1907–08	16	323	229	25,469	16,800	—	16,800	5,000
1908–09	21	318	294	35,743	22,411	—	22,411	6,564
1909 (July 1)–1910 (May 31)	31	310	376	51,371	34,243	—	34,243	8,300
(b) UNION FROM 1ST JUNE, 1910.								
1910 (June 1–Dec. 31)	45	225	351	45,771	25,672	—	25,672	7,830
1911	48	465	616	83,987	53,699	—	53,699	11,281
1912 (Jan. 1–Mar. 31)	49	111	150	20,385	14,090	5,651	19,741	2,589
1912–13	58	700	593	88,309	48,734	26,959	75,693	9,422
1913–14	64	584	830	116,366	44,505	36,956	81,461	11,272
1914–15	49	337	664	87,680	42,294	18,897	61,191	9,784
1915–16	21	164	253	37,129	25,244	1,778	27,022	4,654
1916–17	27	356	389	46,300	28,306	2,902	31,208	6,315
1917–18	41	474	551	69,424	36,932	14,427	51,359	9,802
1918–19	43	382	469	70,916	39,142	24,613	63,755	8,720
1919–20	59	1,061	602	87,456	51,590	39,199	90,789	8,848
1920–21	67	972	675	107,961	77,300	48,552	125,852	9,418
1921–22	71	421	873	124,575	78,049	33,987	112,036	11,403
1922–23	57	605	687	100,825	22,699	63,782	86,481	8,348
1923–24	43	400	483	76,120	10,213	51,062	61,275	7,190
1924–25	49	497	553	90,891	14,273	62,661	76,934	8,462

* Records for other Provinces not available.

5. **Irrigation Districts.**—At the 31st March, 1925, 93 Irrigation Districts, controlled by Irrigation Boards, had been constituted. These districts and boards are constituted in terms of Chapter VI of the Union Irrigation Act for the purpose of carrying out and controlling co-operative irrigation schemes. Any three riparian owners can petition the Minister for an Irrigation District to be formed, and if, on inquiry, it is found that the owners of not less than two-thirds of the total irrigable area under the projected scheme are in favour of the constitution of this district, it may be constituted by the Governor-General-in-Council by proclamation. All the irrigable area in the district then becomes liable to rating by the board, and these rates are a preferent charge on the land, ranking prior to all other mortgages. An irrigation board can obtain irrigation loans from the Government or other sources on the security of its rates.

Most of the irrigation development in the Union has been done through the medium of Irrigation Boards, especially in the Cape Province.

Of the 93 Irrigation Boards established at 31st March, 1925, 66 were in the Cape Province, 22 in the Transvaal, and 5 in the Orange Free State. Of the proposed schemes 69 were completed, 3 were under construction, 16 were under investigation, and 5 were boards dormant for the time being. The cost of the completed schemes was £3,578,844, the rateable area being 143,906 morgen. Approximate figures for works under construction are £732,000, and rateable area 27,439 morgen.

The following table gives particulars regarding Irrigation Districts established in the Union on the 31st March, 1925. With the exception of those against which a mark of reference has been placed, all irrigation works contained in the table have been completed.

IRRIGATION DISTRICTS ESTABLISHED AT 31st MARCH, 1925.

Name and District.	Source of Water Supply.	Area to be Rated.	No. of Voters 31st March, 1925.	Cost of Works.	Average Cost per Morgen Irrigated.
CAPE OF GOOD HOPE.		Morgen.		£	£
†Aberdeen; Aberdeen	Brakke River	1,095	28	49,675	45·37
Angora; Robertson and Swellendam	Breede River	606	21	1,500	2·48
Baroda; Cradock	Great Fish River.	4,342	23	72,500	16·70
†Baverspoort–Beervlei; Hopetown and Britstown	Beervlei and Brak Rivers	9,806	9	113,500	11·57
Bellair; Ladismith and Swellendam	Brak River	1,900	20	45,300	23·84
Blyde River; Pearston	Blyde River	505	12	33,803	66·94
†Boschjesmansrivier; Robertson.	Boschjesmansrivier	1,008	16	—	—
†Brakbosch Island, Kenhardt	Orange River	190	11	—	—
Breede River; Robertson	Breede River	2,484	33	35,150	14·15
Breede River Conservation; Swellendam, Robertson, Worcester, and Tulbagh	Breede River	9,973	176	83,713	8·39
Buffelsfontein; Ladismith	Groot River	169	19	8,850	52·37
Buffelsvlei–Gamka; Oudtshoorn	Gamka River	435	40	15,000	34·48
Calitzdorp; Oudtshoorn	Nels River	1,043	87	168,053	161·90
Cougha Poort; Humansdorp	Gamtoos River	802	18	28,140	35·09
Doorn River; Worcester	Doorn River	1,152	14	5,156	4·48
§Drennan; Cradock and Bedford	Fish River	1,743	4	—	—
Duivenhoks River; Swellendam	Duivenhoks River	1,223	48	40,580	33·18
§Dwars River; Tulbagh and Worcester	Breede River	850	16	—	—
Elands River; Stockenstrom	Elands River	180	23	—	—
‡Great Fish River; Cradock and Bedford	Brak and Tarka Rivers	25,832	161	720,000	27·87
Groothoek; Worcester	Groothoek Str.	168	11	12,150	72·32
Hankey; Humansdorp	Gamtoos River	441	97	—	—
Hex River; Worcester	Hex River	2,400	42	7,500	3·13
Hoops River; Robertson	Hoops River	232	23	5,950	25·65
Hougham Abrahamson; Somerset East	Great Fish River.	4,109	41	56,850	13·84
Jan Fourie's Kraal; Oudtshoorn	Oliphants River	1,626	65	7,500	4·61
Kamanassie; Oudtshoorn	Kamanassie River	12,697	275	726,000	57·18
Klein Klass Voogds; Robertson	Klein Klass Voogds River	329	10	2,600	7·90
Klipfontein; Somerset East and Bedford	Great Fish River.	1,534	5	28,474	18·56
Le Chasseur and Goree; Worcester	Breede River	1,728	32	70,462	40·78
Leeuw Gamka; Prince Albert	Leeuw and Gamka Rivers	2,500	22	60,000	24·00
Loerie River; Uitenhage	Loerie River	94	26	—	—
Louisvale; Kenhardt	Orange River	909	67	4,000	4·40
Lower Seacow River; Colesberg	Seacow River	400	6	9,828	24·57
Maraisburg; Maraisburg	Vlekpoort River	3,026	13	23,528	7·78
Marlow; Cradock	Fish River	1,836	9	53,000	28·87
McGregor; Robertson	Hout Baai River.	835	7	6,969	8·35
Middleton; Bedford and Somerset East	Great Fish River.	2,652	21	78,000	29·41
§Miller; Willowmore and Aberdeen	Plessis and Hope Rivers	750	11	56,500	75·33
Mortimer; Cradock and Bedford	Great Fish River.	1,645	21	34,500	20·97
Nonna River; Worcester	Nonna River	840	11	6,360	7·57
Noree; Robertson	Two small kloofs.	946	9	4,137	4·37
Nuy River; Worcester	Nuy River	1,610	14	15,762	9·79
Oliphants River; Van Rhynsdorp	Oliphants River	9,000	118	*252,500	28·06
Onseepkans; Kenhardt	Orange River	314	48	—	—
†Peninsula; Albany	Great Fish River.	4,015	36	—	—
§Poortfontein; Ladismith	Doorn River	719	6	—	—
Prins River; Ladismith	Prins River	1,309	16	22,000	16·81
Rademeyer; Humansdorp	Gamtoos River	1,525	34	32,017	20·99
Reenen; Humansdorp	Gamtoos River	1,210	62	37,196	30·74
†Renfield; Bedford	Great Fish River	1,200	7	—	—
Ritchie; Kimberley	Riet River	78	26	3,150	40·38
Scanlen; Cradock	Fish River	2,754	21	50,000	18·16

* Board's portion of cost. † Under investigation. ‡ Under construction. § Dormant.

IRRIGATION DISTRICTS ESTABLISHED AT 31ST MARCH, 1925—*continued.*

Name and District.	Source of Water Supply.	Area to be Rated.	No. of Voters 31st March, 1925.	Cost of Works.	Average Cost per Morgen Irrigated.
CAPE OF GOOD HOPE—*contd.*		Morgen.		£	£
Smalfontein; Tarka.....	Vlekpoort River..	4,903	9	36,600	7·46
Somerset East; Somerset East	Little Fish River.	2,197	36	28,321	12·89
Stoltz River; Beaufort West..	Stoltz River.....	500	11	31,700	63·40
Sundays River; Uitenhage....	Sundays River...	25,696	445	560,000	21·79
Tarka Bridge; Cradock.....	Tarka River.....	2,126	16	15,797	7·43
†Toverkop; Ladismith.....	Groot River.....	3,243	74	—	—
Upington; Gordonia.....	Orange River....	524	103	3,400	6·49
Van Rhyneveld's Pass; Graaff-Reinet	Sundays River...	10,544	61	415,000	39·36
Verkeerde Vlei; Worcester and Ceres	Verkeerde Vlei...	639	24	300	0·47
Vink River; Robertson.....	Vink River.....	700	5	6,800	9·71
Vrolikheid; Robertson.....	Hoeks River.....	837	12	—	—
Willem Nel's River; Robertson	Willem Nel's River	438	7	7,750	17·69
Zanddrift; Robertson.....	Breede River.....	2,452	50	54,381	22·18
TRANSVAAL.					
Bon-Accord; Pretoria.....	Aapies River.....	1,395	34	115,000	82·44
Brits; Pretoria.....	Crocodile River...	416	34	—	—
†Gorge Impala; Barberton.....	Crocodile River...	6,000	14	—	—
Klerksdorp; Potchefstroom....	Schoonspruit.....	590	108	26,600	45·08
Les Marais; Pretoria.....	Aapies River.....	98	105	—	—
Lower Kaap; Barberton.....	Kaap River.....	824	6	15,000	18·20
†Makwassi; Wolmaransstad....	Makwassi Spruit..	680	122	—	—
Manchester-Noordwyk; Barberton.	White River.....	556	9	—	—
†Marico–Boschveld; Marico.....	Groot Marico River	2,587	56	—	—
†Middelburg; Middelburg and Pietersburg	Groot Oliphants River	2,134	27	—	—
†Molopo River; Marico.....	Molopo River....	860	45	—	—
‡Oberholzer: Potchefstroom....	Oog van Wonderfontein	318	94	—	—
†Oliphants Nek; Rustenburg...	Hex River.....	1,738	57	—	—
Ranch Karino; Barberton....	White River.....	1,000	21	10,500	10·50
‡Spekboom River; Lydenburg.	Spekboom River..	1,289	18	12,000	9·31
Sterkloop; Middelburg.....	Steelpoort River..	109	4	1,800	16·51
†Twyfelpoort; Rustenburg.....	Sterkstroom River	120	23	—	—
Tzaneen; Pietersburg.....	Groot Letaba....	220	11	7,166	32·57
Vlakplaats; Carolina.....	Godwan River...	298	10	2,494	8·37
Warmbaths; Waterberg.....	Plat River.....	350	11	1,497	4·28
Zandspruit; Pretoria.....	Zandspruit.....	45	7	560	12·44
†Schweizer-Reneke; Bloemhof..	Harts River.....	944	159	—	—
ORANGE FREE STATE.					
Kaffir River; Bloemfontein....	Kaffir River.....	2,358	15	90,000	38·17
Papfontein; Thaba 'Nchu....	Tributary of Modder River	409	7	—	—
§Shannon Valley; Bloemfontein.	Rhenoster Spruit.	113	15	—	—
†Upper Modder River; Bloemfontein.	Modder River....	8,000	81	415,000	51·88
Zoutpansdrift; Boshof.....	Vaal River.....	128	9	—	—

† Under investigation. ‡ Under construction. § Dormant.

6. **Important Irrigation Schemes.**—(i) *General.*—Since 1916 great progress has been made with irrigation based upon conservation schemes, and the following table embodies some of the more important of these. Some further particulars of certain of these works will be found in the succeeding paragraphs:—

STORAGE WORKS CONSTRUCTED, UNDER CONSTRUCTION, OR AUTHORIZED.

Name of Scheme and District.	Storage Capacity, million cubic feet.	Actual or Estimated Cost of Scheme.
CAPE PROVINCE.		£
Bellair; Ladismith and Swellendam	425	45,300
Blyde River; Pearston	81	29,500
Brandvlei; Swellendam, Robertson, Worcester, and Tulbagh	1,600	116,000
Calitzdorp; Oudtshoorn	205	168,053
Grass Ridge (Great Fish River); Cradock	2,757	170,000
Kamanassie; Calitzdorp and Oudtshoorn	1,355	660,000
Lake Mentz (Sundays River); Uitenhage and Jansenville	4,122	560,000
Leeuw Gamka; Prince Albert	355	60,000
Prins River; Ladismith	135	22,000
Stoltz River; Beaufort West	56	30,000
Tarka (Great Fish River); Cradock	2,500	550,000
Van Ryneveld's Pass; Graaff-Reinet	2,800	435,500
TRANSVAAL.		
Bon-Accord; Pretoria	415	110,000
Hartebeestpoort; Pretoria and Rustenburg	5,369	1,600,000
Klipdrift; Potchefstroom	443	84,000
Klerksdorp; Klerksdorp	188	26,600
ORANGE FREE STATE.		
Kaffir River; Bloemfontein	1,350	90,000
Kopjes; Vredefort	313	94,000

(ii) *Hartebeestpoort* (*Crocodile River*).—The dam is situated in a poort in the Magaliesberg Mountains, about 25 miles west of Pretoria on the Rustenburg road. The works were commenced in August, 1916, and consist of a concrete dam of constant-angle arch type, 460 feet long, 161 feet high above the river bed, and 193 feet above lowest foundation level. The area of the reservoir at full supply is 6½ square miles. The capacity of the dam is 123,255 acre feet, and the land irrigable totals 40,000 acres.

(iii) *Lake Mentz* (*Sundays River*).—The dam is situated 42 miles below Jansenville. The works were commenced in July, 1918, and consist of a concrete gravity section dam, 1,260 feet long, 94 feet high above the river bed, and 114 feet above lowest foundation level. The area of the reservoir at full supply is 7½ square miles. The capacity of the dam, which can be increased, is 94,000 acre feet. The area of the land rated by the Sundays River Irrigation Board is 38,000 acres.

(iv) *Kamanassie* (*Kamanassie River*).—The site of the dam is about 12 miles from Oudtshoorn. The works were commenced in June, 1919, and consist of a concrete gravity section dam, 1,265 feet long, 115 feet high above the river bed, and 145 feet above lowest foundation level. The area of the reservoir at full supply is 1¼ square miles. The capacity of the dam is 31,110 acre feet, though this can be raised. The area of the land rated by the Kamanassie Irrigation Board is 27,000 acres.

(v) *Tarka* (*Tarka River, Tributary of the Great Fish River*).—The dam is situated on the farm Tekenfontein, 18 miles north of Cradock. The works were commenced during 1921, and consist of a concrete gravity section dam, 1,640 feet long, 107 feet high above the river bed, and 124 feet above assumed lowest foundation level. The area of the reservoir at full supply is 3¼ square miles. The capacity of the dam is 58,000 acre feet, but provision is made for later increase. The area of the land rated by the Great Fish River Board is 35,000 acres.

(vi) *Grass Ridge* (*Great Brak River*).—The dam is situated on the Great Brak River, 9 miles above Fish River Station. The works were commenced during 1921, and consist of an earthen dam with a concrete core wall. It is 1,530 feet long, 80 feet high above the river bed, and 96 feet high above assumed lowest foundation level. The area of the reservoir at full supply is 5 square miles. The capacity of the dam is 63,272 acre feet. The area of the land rated by the Great Fish River Board is 20,000 acres.

(vii) *Van Ryneveld's Pass* (*Sundays River*).—The dam is situated immediately above Graaff-Reinet. The works were commenced in July, 1920, and consist of a concrete dam, 1,160 feet long, 106 feet high above the river bed, and 141 feet above lowest foundation level. The area of the reservoir at full supply is 4 square miles. The capacity of the dam is 64,000 acre feet; this can be increased. The area of the land rated by the Irrigation Board totals 22,000 acres. The scheme is nearing completion.

(viii) *Tygerpoort (Kaffir River).*—The dam is situated about 22 miles south of Bloemfontein. The works were commenced during the first quarter of 1922, and consist of an earthen dam with a reinforced concrete core wall. It is 395 feet long, 65 feet high above the river bed, and 95 feet above lowest foundation level. The area of the reservoir at full supply level is 4 square miles. The capacity of the dam is 30,000 acre feet. The area of the land rated by the Irrigation Board totals 4,800 acres.

§ 2. Conservation of Water.

1. **Waterworks and Storage in Municipal Areas.**—The following table gives particulars of the cost of installation, storage capacity, and consumption of the principal Municipal Waterworks in the Union for the year 1923–24:—

URBAN WATERWORKS, 1923–24.

TOWN.	Cost of Installation.	Maximum Storage Capacity (in Thousands of Gallons).	Maximum Working Capacity per diem (in Thousands of Gallons).	CONSUMPTION.	
				Annual (in Thousands of Gallons).	Average Daily (in Thousands of Gallons.)
	£				
Cape Town.....	2,935,127	1,314,000	10,500	2,528,562	6,928
East London.....	341,708	350,905	700	297,003	814
Grahamstown.....	115,514	182,000	350	59,077	162
Kimberley.....	317,196	1,320,000	2,250	204,699	561
King William's Town	164,423	106,500	600	242,306	664
Port Elizabeth.....	720,330	339,000	2,250	719,368	1,971
Queenstown.....	133,783	1,555,000	†	†	†
Wynberg.....	245,362	109,000	1,000	†	†
Durban.....	1,099,497	321,500	7,000	2,215,464	6,070
Pietermaritzburg.....	284,295	6,000	3,000	1,011,332	2,771
Benoni.....	20,567	—	—	77,941	214
Boksburg.....	20,844	—	—	42,515	116
Brakpan.....	13,779	—	—	29,115	80
Germiston.....	41,443	—	—	98,051	268
Johannesburg.....	589,047	16,691	—	1,758,316	4,817
Krugersdorp.....	5[illegible],642	6,000	400	93,000	255
Pretoria.....	322,720	3,500	6,000	1,642,500	4,500
Roodepoort - Maraisburg.....	15,235	—	—	30,337	83
Rand Water Board*	4,946,284	13,668,000	13,400	4,400,568	12,023
Springs.....	17,958	—	—	27,463	75
Bloemfontein.....	471,528	450,000	1,500	370,000	1,010
Other Towns.....	1,631,199	1,214,722	43,890	10,088,770	27,346

* Supplies Benoni, Boksburg, Brakpan, Germiston, Johannesburg, Krugersdorp, Roodepoort-Maraisburg, and Springs.
† Particulars not available.

2. **City of Cape Town Waterworks.**—(i) *Before Unification.*—The waterworks system of the Peninsula in existence at the promulgation of the *City of Cape Town Unification Ordinance*, 28th July, 1913, consisted of the following:—

Cape Town—

(1) 1849–52. Reservoir No. 1, below De Waal Park: capacity 2,500,000 gallons; cost about £2,700.
(2) 1856–60. Reservoir No. 2: capacity 12,000,000 gallons; cost approximately £8,100.
(3) 1877–86. Molteno Reservoir: capacity 43,000,000 gallons; cost £98,000.
(4) 1891–97. Woodhead Tunnel and Reservoir: capacity 210,000,000 gallons; cost £150,000.
(5) 1898–1904. Hely-Hutchinson Reservoir: capacity 200,000,000 gallons; cost approximately £200,000.
(6) 1907–08. Kloof Nek Reservoir: capacity 3,000,000 gallons; cost about £25,000

Southern Suburbs—

(1) Albion and Kommetje Springs.
(2) Newlands Reservoir: capacity 30,000,000 gallons; cost £130,000.

Kalk Bay—

1900. Reservoir: capacity 22,000,000 gallons.

(ii) *Steenbras Water Scheme.*—Various schemes for the augmentation of the water supply were under consideration before unification, but the question was left in abeyance until the Ordinance came into force. In September, 1915, a Board of Engineers was appointed to examine and report upon (1) the extent to which the present and other sources of water supply within the Cape Peninsula could be developed; and (2) certain sources of water supply outside the Peninsula. The Board came to the conclusion that it would be necessary for Cape Town to go outside the limits of the Peninsula for an adequate supply of water, and, after further investigations, recommended that the Steenbras Scheme should be carried out at the earliest available opportunity.

On the 3rd May, 1917, the Steenbras Water Scheme was adopted by the Council, and in July a loan of £850,000 was authorized for carrying out the scheme to supply 5,000,000 gallons of water per day from the Steenbras Valley. Contracts for the works were signed in December of that year, but in 1919 the contractors found they were unable to complete the work as expeditiously as required, and the Council decided to take over the contracts and finish the work departmentally.

The Steenbras Valley is situated in the division of Caledon, 40 miles from Cape Town. The whole of the catchment area, 23½ square miles, together with the land on either side of the river to the sea, is owned either by the Government or the Council. The works consist of: (1) a wall built above the entrance to the gorge, to impound the waters of the two rivers, Kogel Berg and Steenbras, which unite a few hundred yards above the site of the dam; (2) a tunnel, 2,700 feet in length, through the Hottentots Holland range of mountains; and (3) a cast-iron pipe-line to Cape Town. The present reservoir is designed to hold 600,000,000 gallons of water, sufficient to balance 5,000,000 gallons per day, but the Steenbras Valley is capable of providing up to a daily supply of 20,000,000 gallons of water when required. Water is conveyed to Cape Town through the tunnel and a cast-iron pipe-line 40 miles in length, and was turned into the Lower Reservoirs on the 20th January, 1921. The scheme was officially inaugurated by H.R.H. Prince Arthur of Connaught on the 9th March, 1921.

In 1923 the Council decided to proceed with the enlargement of the Steenbras scheme. A Board of Engineers was appointed to examine and report fully as to the additional works required. The Board recommended—

(1) the extension of the existing dam by widening and raising it 40 feet so as to impound 6,000,000,000 gallons. The maximum depth of the water will then be 90 feet, and when the reservoir is full, the surface area will be about 827 acres;
(2) the construction of a new outlet tower;
(3) the provision of a 33 inch cement-lined steel wrapped pipe line to Newlands Reservoir, having a capacity of 10,000,000 gallons per diem.

The estimated cost of the above works is £1,090,000. The report was finally adopted in November, 1923, and it is anticipated that the additional supply will be available for the summer season of 1927–28.

(iii) *Statistics of Steenbras Scheme.*—The following are the main statistics of the scheme:—

Total length of pipe-line	40 miles.
Length of dam	900 feet.
Maximum depth of water behind dam	50 feet.
Maximum height of wall	62 feet.
Lowest draw-off level, 30 feet below top water-level and 1,060 feet above sea-level.	
Area of reservoir at top water-level	220 acres.
Top water-level of reservoir, height above sea-level	1,090 feet.
Capacity of reservoir when full	600,000,000 gallons.
Elevation of catchment area, over 1,000 feet above sea-level.	
Height of tunnel above sea-level	1,055 feet.
Length of tunnel	2,700 feet.
Cost (approximate)—	
Reservoir, tunnel, land and water rights, etc	£303,000.
Pipe-line	£871,000.
Total cost (capital expenditure)	£1,173,686.
Annual charges (including interest, sinking fund, and maintenance)	£70,479.
Annual amount spent on maintenance	£1,267.

3. **Rand Water Board.**—(i) *Constitution and Organization.*—In 1901 the Transvaal Government appointed the Witwatersrand Water Supply Commission to inquire into the available sources of water supply, with the object of formulating a scheme for the adequate supply of water to the local authorities and mines on the Witwatersrand, and to consider the constitution of a public body to carry out that scheme. As the result of the investigations of that Commission, the Rand Water Board was constituted, under Ordinance No. 32 of 1903 (Transvaal), to supply water in bulk to the municipalities, and in bulk and in retail

to the South African Railways and the gold-producing mines situated within the Board's "limits of supply," which include the magisterial districts of Johannesburg, Boksburg, Germiston, Krugersdorp, Benoni, and Springs. Further statutory powers were conferred upon the Board by Ordinances Nos. 48 of 1904, 30 of 1905, 21 of 1906, and Act No. 22 of 1909 (Transvaal); also by Union Acts Nos. 18 of 1914, 10 of 1920, 10 of 1921, and 18 of 1923.

The Board consists of 26 members, including the chairman, who is appointed by the Union Government. Twelve members represent the Transvaal Chamber of Mines; five the Johannesburg Municipality; the remaining eight being the representatives respectively, of the municipalities of Benoni, Boksburg, Brakpan, Germiston, Krugersdorp, Roodepoort-Maraisburg, and Springs, and of the Railway Administration.

Under the Ordinance of 1904, the water undertakings of the Johannesburg Waterworks Estate and Exploration Company, Limited, the Vierfontein Syndicate, Limited, and the Braamfontein Company, Limited, were transferred to and vested in the Board on the 31st March, 1905.

The total water supply available to the Board from the above-mentioned undertakings, at the 31st March, 1905, was about 2½ million gallons a day, barely sufficient to supply the domestic requirements of the inhabitants of Johannesburg and Germiston, and of the mines on the Central Rand. Almost the whole of this supply was drawn from boreholes and shafts sunk on the farm Zuurbekom, situated about 17½ miles to the south of Johannesburg. This source of supply, together with the plant and mains, was acquired by the Board from the Johannesburg Waterworks Estate and Exploration Company, Limited.

(ii) *Later Developments.*—During the course of the next few years, the Board developed a further underground water supply in the Klip River Valley, by means of boreholes sunk on its farm Zwartkopjes and on some of the upstream farms for a distance of about 5 miles from Zwartkopjes. Concurrently, the Board extended its distribution system east and west along the Rand. The supply from Zwartkopjes was brought into service in 1908, and for a time the supply available from this source and from Zuurbekom was sufficient to meet all requirements. The Zwartkopjes scheme, and the extension of the distribution system to the east and west of Johannesburg, was carried out by Mr. Donald Leitch, M.Inst.C.E., the Board's Chief Engineer. Mr. Leitch retired from the Board's service in 1910, and the late Mr. W. Ingham, M.Inst.C.E., M.I.Mech.E., was then appointed Chief Engineer to the Board. Immediately on assuming office, Mr. Ingham undertook the further development of the Zuurbekom supply, which he increased from 2·5 million gallons a day to 7·3 million gallons a day. On his recommendation, also, electrically driven pumps were installed at Zuurbekom, the necessary electric power being generated at and transmitted from the Central Pumping Station of Zwartkopjes, about 17 miles distant.

(iii) *Vaal River Barrage.*—In 1911, the demands of the Board's consumers had increased to such an extent that the Board instructed its Chief Engineer to investigate and report to it regarding the question of obtaining a large permanent water supply from a catchment area. As the result of the Chief Engineer's investigations, and on his recommendation, the Board, in September, 1913, adopted a scheme involving the construction of a barrage across the Vaal River at a point about 25 miles downstream of Vereeniging, to impound a quantity of water in the river-bed sufficient to yield a constant supply at the rate of 20 million gallons daily, and the installation of plant and mains to deliver a first instalment of 10 million gallons a day to the Rand. The necessary powers in this regard were obtained from the Union Parliament in June, 1914, but the outbreak of war a few months later rendered a commencement of the work impossible for some years.

Early in 1916, the Board decided to proceed with the construction of the barrage across the Vaal River. This work was commenced in July, 1916, and completed in October, 1922.

The works necessary to bring a supply of 5 million gallons a day to the Rand from the Vaal River were commenced in 1920, the Board having adopted the smaller unit in preference to the first instalment of 10 million gallons a day included in the original scheme approved by the Board in 1913. This first unit of 5 million gallons a day was completed and water therefrom was brought into service at the end of July, 1923. The question of proceeding with a second unit of 5 million gallons a day is still under consideration by the Board.

The works comprised in the Vaal River scheme include the barrage across the Vaal River at a point near Lindeques Drift, about 25 miles downstream of Vereeniging, consisting of thirty-six steel sluice gates 25 feet high and 30 feet in width, placed between concrete piers. When the storage resevoir thus created is full, the water is backed up for a distance of about 40 miles from the barrage, the contents of the reservoir being about 13,633 million gallons. Of this quantity, 1,560 million gallons is impounded for the use of the owners of land riparian to the reservoir area, in terms of section 3 (2) of Act No. 18 of 1914; and, after allowing for evaporation and absorption, and the quantity lying in the river bed below the level of the suction pipes at the River "Intake" pumping station, a balance of 7,300 million gallons is available for the use of the Board, being the equivalent

of a supply of 20 million gallons a day. The point of abstraction of the water from the reservoir is situated at Vereeniging, where pumping and purification plants have been erected to deal with the first instalment of 5 million gallons a day. After being rendered potable, the water is pumped from Vereeniging against a head of 480 feet to the Board's existing pumping station at Zwartkopjes. The water is then allowed to mingle with the underground water supplies collected at the Zwartkopjes Central Station, and the total available quantity pumped to the Board's service reservoirs at Forest Hill, Johannesburg (head 1,100 feet), and at Boksburg (head 820 feet), and from thence gravitated to the various points of supply.

(iv) *Statistics.*—Summarized particulars of the Board's water supply undertaking were given in *Official Year Book* No. 6. The following tables contain statistics of water supplied by the Board and the financial position of the latter :—

(i) WATER SUPPLIED TO CONSUMERS DURING THE YEAR ENDED 31st MARCH, 1925.

(In Million Gallons.)

Consumer.	Total Consumption.
Municipalities	1,991
Gold Mining Industry	1,849
South African Railways	459
Other Consumers	148
TOTAL	4,447

(ii) FINANCIAL POSITION—RAND WATER BOARD.

(*a*) Loan Account.

	£
Klip River Valley Scheme and General Distribution System	3,400,000
Vaal River Scheme	1,537,350
TOTAL	£4,937,350

(*b*) Revenue, Etc.

For the year ended 31st March, 1925, the revenue of the Board amounted to £478,485, and the expenditure to £477,485, the difference of £1,000 being transferred to the credit of the Fixed Charges Account. At the 31st March, 1925, the Reserve Fund stood at £68,526, the Renewals Fund at £130,493, and the Stock Redemption Fund at £1,930,217.

CHAPTER XIII.

AGRICULTURAL AND PASTORAL PRODUCTION.

§ 1. General.

1. Statistics of Production.—(a) *Introduction.*—A brief history of the development of agriculture in South Africa will be found in the sixth and earlier issues of this *Year Book*. More detailed statistics about this industry will be found in the Annual "Report on the Agricultural and Pastoral Production of the Union of South Africa."

The work of enumeration in connexion with the census is performed by the police organization. Information is furnished under the Statistics Act, which provides penalties for non-compliance, for failing to answer questions put by authorized officers, for refusing to permit authorized officers to enter upon any land, etc., for hindering or obstructing authorized officers, for giving wrong information, and, on the part of officers employed in collecting and handling the information, for divulging any facts relating to the affairs of an individual farmer.

(b) *Period covered by the Census.*—The first agricultural census was taken for the period July, 1917 to June, 1918. The second covered the ten months from July, 1918, to April, 1919. The next three dealt with the twelve months ending on 30th April of each year. The sixth census covered the period of sixteen months from May, 1922, to August, 1923. The annual agricultural census is now definitely taken for the year ending on 31st August.

(c) *Classification.*—The conduct annually of a complete agricultural census, including live stock in towns, is impossible on the ground of cost. In arranging for an agricultural census the following factors must be borne in mind :—

A.—Production in *Urban* areas. *B.*—Production in *Rural* areas by :
(1) Europeans.
(2) Asiatics and coloured persons.
(3) Natives on farms occupied by Europeans, Asiatics, and Coloured persons.
(4) Natives in reserves, locations, mission stations, and native farms.

A.—As far as production in *urban areas* is concerned, it has been decided to include all agriculture on plots one morgen in extent and over, the produce of which is grown for sale, and this is now included in the annual agricultural census. Further, the total number of live stock in urban areas belonging to Europeans is taken at the quinquennial census, and all live stock in urban areas at the decennial census of the total population, taken in the first year of each decade.

B.—As far as production in *rural areas* is concerned, the population census of 1904 provided figures in regard to Class B (1), (2), and (3) above, but not for each of the sub-groups separately. The agricultural and population censuses of 1911, 1918, and 1921 provided figures for all the sub-groups, but not separate details for (1), (2), and (3). The agricultural censuses of 1919, 1920, and 1922, provided details for (1), (2), and (3) as one group, but since 1923 Group (3) is being shown separately, and this information is now being collected annually. The figures of Sub-group (4) have been collected annually since 1923, and it is proposed to continue with this. Separate figures for all native production are therefore available since 1923.

Groups B (1) and (2) therefore will represent the most important series of agricultural statistics [see Table (i) below], but by adding the figures in Groups A (3) and (4) for the years in which they are available [see Table (ii) below] a total for all agricultural production (excluding live stock in urban areas, and production in urban holdings of less than one morgen) will be obtained.

Complete figures including all urban production will be available only in the first year of every decade, but as the urban native figures are relatively small, the five-yearly figures may be regarded as roughly comparable. As the total urban figures are relatively unimportant, the two main tables [(i) and (ii) below] will give a sufficiently accurate picture of the state of the agricultural industry of South Africa.

(i) FARMS AND AGRICULTURAL HOLDINGS OCCUPIED BY EUROPEANS, ASIATIC AND COLOURED PERSONS (INCLUDES THE STOCK AND PRODUCTION OF NATIVES RESIDING ON THESE FARMS, BUT EXCLUDES THE STOCK AND PRODUCTION OF NATIVES IN RESERVES, LOCATIONS, MISSION STATIONS, AND ON NATIVE FARMS).

(*a*) Number of Principal Classes of Live Stock.

Year.	Cattle.	Horses.	Mules.	Asses.	Pigs.	Woolled Sheep.	Other Sheep.	Angora Goats.	Other Goats.	Ostriches.
1904	3,500,453	449,539	134,734	141,930	679,084	11,820,635	4,501,868	3,392,739	6,377,806	360,830
1918	5,171,654	677,884	82,769	473,587	660,565	22,775,436	4,122,318	2,570,464	2,703,415	314,265
1919	5,575,488	695,138	81,150	498,616	724,007	23,548,130	4,943,370	2,696,670	3,145,600	282,070
1920	5,974,802	690,124	92,795	523,550	560,155	22,303,290	3,985,670	2,062,690	2,832,390	283,980
1921	6,201,411	764,615	115,170	599,018	560,781	25,261,149	3,462,791	2,150,601	2,958,024	261,828
1922	6,552,837	767,481	112,946	620,274	540,634	23,447,662	5,048,086	2,124,946	3,403,606	268,378
1923	6,611,868	690,265	117,431	601,441	582,144	23,072,548	5,000,826	2,147,041	3,422,577	241,102
1924	6,664,059	687,497	122,921	601,642	508,476	24,187,914	4,526,160	2,000,248	3,327,812	206,785

(*b*) Production of Principal Crops.

Year.	Wheat.	Barley (Grain only).	Oats (Grain only).	Kaffir Corn.	Maize.	Potatoes.	Cotton (not Ginned).	Tobacco.	Tea (Green leaf).	Sugar-cane.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	lb.	1,000 lb.	1,000 lb.	Tons (2,000 lb.)
1904	141,739	48,515	130,713	188,171	722,319	—	—	—	—	—
1918	587,405	97,177	335,210	92,917	1,942,522	220,181	796,610	12,502	6,514	1,258,302
1919	478,734	65,858	204,450	106,858	1,734,118	205,713	1,418,611	14,183	5,744	—
1920	307,744	34,559	149,937	124,360	1,873,816	187,638	2,592,200	11,644	5,168	—
1921	439,408	50,221	189,131	94,484	1,954,743	215,931	3,576,400	15,007	3,703	1,627,403
1922	505,137	63,054	165,959	124,560	1,970,948	259,855	2,806,367	9,813	2,369	—
1923	361,476	58,235	183,286	198,654	3,153,456	211,085	7,346,710	8,567	2,862	1,676,036
1924	352,698	50,154	211,079	115,801	1,666,426	211,771	10,003,285	10,676	3,515	1,918,560*

* Excluding coloured and Asiatic production—approximately 6 per cent. of the total production of the Union.

(ii) STOCK AND PRODUCTION OF NATIVES IN RESERVES, LOCATIONS, MISSION STATIONS, AND ON NATIVE FARMS.—PRINCIPAL CLASSES OF LIVE STOCK AND PRODUCTION OF PRINCIPAL CROPS.

Year.	Cattle.	Horses.	Mules	Asses.	Pigs.	Woolled Sheep.	Other Sheep.	Angora Goats.	Other Goats.	Wheat	Kaffir Corn.	Maize.	To bacco
										1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1918	1,680,270	103,138	1,790	80,729	382,659	2,283,282	732,999	160,714	2,584,278	21,566	267,366	585,496	2,429
1921	2,355,678	155,853	1,619	123,220	353,988	2,496,064	509,508	133,970	2,594,101	17,394	216,325	714,704	1,614
1923	2,703,314	167,285	1,532	118,515	285,535	2,603,797	546,575	124,126	2,550,410	14,795	217,331	799,302	1,104
1924	2,942,215	160,939	1,764	120,208	269,671	2,748,983	539,791	126,383	2,609,311	5,694	130,123	581,342	730

(ii) COMPLETE CENSUSES OF AGRICULTURE (INCLUDES ALL NATIVE PRODUCTION).

(*a*) Number of Principal Classes of Live Stock.

Year.	Cattle.	Horses.	Mules.	Asses.	Pigs.	Woolled Sheep.	Other Sheep.	Angora Goats.	Other Goats.	Ostriches.
1911	5,796,949	719,414	93,931	336,710	1,081,600	21,842,215	8,814,444	4,275,335	7,487,644	746,736
*1912	—	—	—	—	—	27,331,167	8,557,754	4,395,101	7,295,061	—
*1913	—	—	—	—	—	28,327,907	7,480,093	4,193,884	7,211,142	776,313
*1915	—	—	—	—	—	25,943,806	5,490,274	2,844,505	6,073,767	—
*1916	—	—	—	—	—	26,490,524	5,490,181	2,564,289	6,397,407	399,028
1918	6,851,924	781,022	84,559	554,316	1,043,224	25,058,718	4,855,317	2,731,178	5,287,693	314,265
1921	8,557,089	920,468	116,789	722,238	914,769	27,757,213	3,972,299	2,284,571	5,552,125	261,828

* Figures furnished by Department of Agriculture.

(*b*) Production of Principal Crops.

Year.	Wheat.	Barley (Grain only).	Oats (Grain only).	Kaffir Corn.	Maize.	Potatoes.	Cotton (not Ginned).	Tobacco.	Tea (Green leaf).	Sugar-cane.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	lb.	1,000 lb.	1,000 lb.	Tons (2,000 lb.)
1911....	362,063	61,145	309,138	309,545	1,726,503	184,238	—	14,961	6,723	—
1918....	608,971	98,572	344,799	360,283	2,528,018	234,536	796,610	14,931	6,514	1,258,302
1921....	456,802	52,071	191,234	310,809	2,669,447	224,026	3,576,400	16,621	3,703	1,627,403

2. **Union Department of Agriculture: Organization.**—Under the *South Africa Act* Parliament has the power itself to administer agricultural affairs or to delegate the whole or any part of the work to the Provinces. When the Union was established the Government decided to exercise that power itself. Accordingly a Minister of Agriculture was appointed for the Union, with a fully equipped Department of Agriculture.

The Department is organized on similar lines to those which characterized the late Transvaal Department, the latter having been modelled largely upon the Department of Agriculture of the United States of America. At the head of the Department is the Minister, who is responsible to Parliament for the policy and acts of the Department, and next in authority is the Secretary, who is the permanent head of the Department and Accounting Officer, and is responsible to the Minister for the work of the Department. The Secretary is assisted by an Under-Secretary.

The activities of the Department are maintained by a number of Divisions and Offices presided over by scientific and technical officers. The Secretary, Under-Secretary, and the Chiefs of the various Divisions and Offices are stationed at Pretoria, with the exception of the Viticulturist and the Superintendent of the Guano Islands, the former being established at Elsenburg and the latter at Cape Town.

The Divisions are as follows:—

(1) Veterinary.
(2) Veterinary Education and Research.
(3) Field and Animal Husbandry.
(4) Botany.
(5) Entomology.
(6) Chemistry.
(7) Extension.
(8) Agricultural Economics and Markets (including Co-operation Sub-Division).

In January, 1925, a reorganization of the Department of Agriculture took place, under which the Director of Animal and Field Husbandry assumed complete control of matters concerning sheep, wool, dairying, poultry, tobacco, cotton, viticulture, horticulture, agricultural schools, Government guano islands, etc. A Division of Economics and Markets was instituted and the Veterinary Division took over all work connected with dipping tanks. Under the Division of Extension, district agents or local extension officers were appointed to further the work of the Division, and generally the heads of Divisions were delegated with a greater measure of administrative control.

3. **Revenue and Expenditure.**—The following is a statement of the revenue and expenditure of the Department for the financial year April, 1923, to March, 1924.

DEPARTMENT OF AGRICULTURE—REVENUE AND EXPENDITURE, APRIL, 1923, TO MARCH, 1924.

Classification.	Expenditure.	Revenue.	Classification.	Expenditure.	Revenue.
	£	£		£	£
Administration.....	41,582	373	Entomology.....	341,263	1,561
Veterinary.....	165,552	1,804	Chemistry.....	8,782	24
Veterinary Research.	84,485	32,569	Publications.....	4,466	—
Sheep Division.....	212,005	50	Co-operation.....	5,515	—
Dairy Industry.....	11,494	1,362	Extension.....	7,375	—
Botany.....	28,085	46	Guano Islands.....	60,714	63,046
Tobacco and Cotton.	13,608	1,719	Egg Inspection*.....	1,298	744
Horticulture.....	6,097	4,398	General.....	9,935	—
Viticulture.....	6,803	1,942	TOTAL.....£	1,009,059	109,638

* Transferred to South African Railways and Harbours Administration from 1st April, 1923.

4. **Veterinary Education and Research.***—(i) *Laboratories.*—The first bacteriological laboratory for veterinary purposes was founded in 1891 at Grahamstown by the Cape Colony Government. Six years later a laboratory was established by the Government of Natal at Pietermaritzburg, chiefly for the preparation of rinderpest serum. About the same time, and as a result of the rinderpest invasion, a laboratory was established by the late Republican Government of the Transvaal. After the South African war, this laboratory was taken over by the Public Health Department, chiefly for the preparation of rinderpest serum and of calf vaccine lymph. With the establishment of a Department of Agriculture in 1902, the station was transferred to the control of that Department, and from that time dates the real study of South African stock diseases. In July, 1906, the Transvaal Crown Colony Government set aside funds for the founding of a new laboratory. The present site at Onderstepoort was purchased, and in the following year when Responsible Government came into existence, wholehearted support was given to the project; building was rapidly pushed forward, and by the 1st October, 1908, the buildings were ready for occupation. With the Act of Union, the laboratories at Grahamstown and Pietermaritzburg were incorporated in the newly-formed Union Department of Agriculture, and as the laboratories at Onderstepoort were the most recent and up-to-date, the headquarters of the new Division were established there under the charge of Dr. Theiler, C.M.G. From the date of Union good progress was made; the nature of most of the diseases was cleared up, and methods were devised for the treatment of stock diseases. In 1914, as a recognition of the services rendered by Dr. Theiler, he was presented with the order of K.C.M.G.

Apart from the three main laboratories referred to (Pretoria, Pietermaritzburg, and Grahamstown), a permanent station has been established at Armoedsvlakte, near Vryburg, where investigation work is confined particularly to "lamsiekte" in cattle and to the general question of mineral deficiency. At Ermelo and also at Bester's Put, Petrus, O.F.S., stations have been established principally for the investigation of sheep diseases, and from time to time temporary camps are erected for field investigation. A laboratory which had been established in Zululand for investigation into the question of "nagana" in cattle was closed down in May, 1924, the immediate object of the station having been accomplished, and it being possible to carry on further work at headquarters.

(ii) *Veterinary Education.*—At the end of 1919 the Government decided to establish a School of Veterinary Science, and an agreement was arrived at for the Veterinary College to be an integral part of the Transvaal University College, the Director of Veterinary Education combining his duties with those of Director of the Institute. The Veterinary course is one of five years' duration, of which the first two years can be taken at a university college and the last three at Onderstepoort. The teaching staff is selected from the research officers of the institute, who thus hold dual positions, and can bring for the benefit of the students the results of investigations undertaken by them in their capacity of research officers.

(iii) *Staff and Functions of Division of Veterinary Education and Research.*—The staff of the Division consists of the Director of Veterinary Education and Research, sub-directors, research officers (some of whom also hold appointments in the University), with an administrative, clerical, and lay staff.

In addition to the educational duties of the Division, investigations are undertaken into the diseases of live stock with a view to discovering methods of diagnosing and suppressing them, and affording protection against their ravages. The Division also prepares sera and vaccines for the prevention of communicable diseases of stock, examines and reports on blood-smears and pathological and chemical specimens submitted by Government veterinary officers, farmers, and others. When requested, advice is given in all matters appertaining to stock, this being not the least important function of the Division. Opportunities are offered to visiting scientists and post-graduate students for carrying out special investigations.

The laboratory products issued by the Division comprise: Horse-sickness serum, for the prevention of horse-sickness in horses and mules; anthrax vaccine, for the prevention of anthrax in all classes of stock; redwater and gall-sickness vaccine, for the preventive inoculation of cattle against redwater and anaplasmosis (gall-sickness); contagious abortion vaccine, for use on cows in herds infected with the disease; black-quarter vaccine, for the prevention of black-quarter (or quarter-evil) in cattle and sheep; blue-tongue vaccine, for the prevention of blue-tongue (malarial catarrhal fever) in sheep; and wire-worm remedy, for the treatment of sheep infected with wire-worms.

Articles on stock diseases are published through the medium of the *Journal of the Department of Agriculture* for the information of the farming population, and a scientific report is published from time to time containing the results of the latest investigations undertaken by the Division.

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* For further details of the Division of Veterinary Education and Research, reference should be made to the sixth and previous issues of this *Year Book*.

5. **Field and Animal Husbandry.**—The officer holding the post of chief of the combined Divisions of Field and Animal Husbandry is charged with the co-ordination of work of the sheep and wool section, dairy section, poultry section, tobacco and cotton, horticulture, viticulture, agricultural schools, guano islands, all matters relating to cultivation and agronomy generally, improvement of stock, fencing, and brands. In addition to these duties, he also undertakes the administrative charge of Agricultural Education.

6. **Division of Botany.**—The primary function of this Division is to undertake research with regard to :

(i) the botanical problems ;

(ii) the plant disease problems ;

(iii) fruit export.

(a) *Botanical Problems.*—The botanical problems include, first and foremost, a study of the vegetation of the country. For this purpose a Botanical Survey of South Africa has been organized. Its objects are to record geographical distribution of plants in the Union ; to obtain and correlate exact measurements of climatic factors which limit the distribution of species and bring about distinct plant formations or vegetative types in the Union ; to protect, develop, improve, and maintain the indigenous vegetation and to promote the full use of its resources by preventing soil erosion and overstocking. The research activities of the survey are supervised by the Director of Botanical Survey and four regional botanists, who, together with the Chief Conservator of Forests, the Director of Veterinary Education and Research, and the Senior Botanist in charge of the National Herbarium, form the Botanical Survey Committee.

Other botanical matters to which the Division devotes special attention are : (1) systematic work in economic botany ; (2) economic botany and indigenous plants ; (3) poisonous plants ; (4) drug plants ; (5) tannin and dye plants ; (6) fibre and paper plants ; (7) oil producing plants ; (8) native grasses ; (9) foreign seed and plant introduction work ; (10) seed testing ; (11) illustrated descriptions of South African plants.

(b) *Plant Disease Problems.*—This aspect of the work is dealt with by the mycological and phytopathological section of the Division, whose activities may be summarized as follows : (1) world plant disease survey ; (2) Union plant disease survey ; (3) advisory work ; (4) inspection work ; (5) general laboratory investigations.

(c) *Fruit Export Investigations.*—These investigations include problems relating to : (1) storage and shipment of citrus ; (2) storage and shipment of deciduous fruit and low temperature research ; (3) railage of fruit to ports at low temperatures.

7. **Division of Entomology.***—(i) *Organization of Division.*—Except that town councils under local government legislation have in some instances secured by-laws in connection with the keeping of bees, the suppression of noxious insects, and the employment of hydrocyanic acid gas as an insecticide within their respective municipalities, the Union Department of Agriculture is the Government body on which devolves the administration of all regulations in respect of insects, the investigation of insect problems, and all public matters pertaining to the suppression of pest insects. The Department divides its insect work between the Division of Entomology and its several agricultural schools. The entomologist at each school, aside from his teaching duties, is expected to give attention to insect queries that arise in the area served by the school, and to conduct insect investigations which can most conveniently be dealt with at his particular centre. The Division of Entomology has broader functions. In addition to conducting studies on economically important insects and disseminating information on the control of pest species by correspondence, publications, experiments, and demonstrations, it gives effect to the Union Government legislation concerning insects. The latter feature comprises measures for the suppression of locusts, for preventing the introduction of pests with imported plants, fruit, and apiary products, and for checking the dissemination of pests with traffic in plants and fruit within the country.

(ii) *Headquarters of Officers.*—The public is privileged to seek information on any injurious insect at the agricultural school, or office of the Division of Entomology, with which it is most convenient to communicate. Any inquiry sent to a school should be addressed to the Principal. The schools are located, respectively, at Elsenburg (P.O. Mulders Vlei, Cape) ; Grootfontein (P.O. Middelburg, Cape) ; Glen (Orange Free State) ; Cedara (Natal) ; and Potchefstroom (Transvaal). The central office of the Division is in Pretoria (P.O. Box 513). The addresses of branches are : P.O. Box 3, Cape Town ; P.O. Box 597, Port Elizabeth ; P.O. Box 16, East London ; and Botanic Garden, Durban. In each case the officer in charge may be addressed as " Government Entomologist."

* A more detailed account of the functions and work of the Division will be found in the sixth and previous issues of this *Year Book*.

A post office regulation requires that postage be paid on any letter of inquiry and on any parcel of specimens that may be sent by one of the general public to a Government officer for report, if the object in view is to secure information for private advantage. Donations of specimens may, however, be sent without postage to the Division of Entomology (and to various other Government institutions) when labelled "O.H.M.S.," and described as "Natural History Specimens" on the wrapper; and it is accepted that letters and specimens may also be sent to Government Entomological officers "O.H.M.S." without postage when the object is purely for the public good, and not a private interest.

(iii) *Plant Import Regulations.*—The introduction of plants from oversea, and also from African territories other than Southern Rhodesia, is allowed only under special permission given at the discretion of the Department. Certain kinds of plants are absolutely prohibited, and, in general, only ten plants of any woody kind are admitted for any one person. The introduction of peach stones is prohibited, and the introduction of chestnuts and acorns, lucerne, cotton, maize, and barley seed is allowed only in small quantities and under conditions. The introduction of broom-corn and raw cotton seed is also drastically restricted. Plants on which any insect or disease is found are liable to exclusion, and all woody plants are fumigated with poisonous gas as a matter of routine. These various precautions are designed to minimize the risk of introducing new pests. Bulbs, and seeds other than the aforementioned kinds, are admitted at present without special permission. Any person who desires to introduce plants should, before he places his order, apply to the Division for a permit for their admission, giving their varietal names and the number of each kind, and stating who is to supply them, where they will be grown, and how they will come. Many nurserymen now refuse to consign plants to South Africa unless they are assured that a permit for them has been or will be issued.

(iv) *Fruit and Potato Import Regulations.*—Fruit is admitted without the formality of a special permit, but is subject to inspection and to treatment, or even to exclusion, should it be found diseased or infested with insects considered pestiferous. The introduction of peaches, plums, cherries, and other stone fruits is prohibited.

Prospective importers of potatoes are advised to obtain from the Division particulars of documents required from the country of origin, as consignments are not admitted until prescribed certificates are produced. The regulations concerning oversea fruit and potatoes apply also to the produce of African territories other than Southern Rhodesia.

(v) *Bee Import Regulations*—The right to introduce bees and used apiary appliances is strictly reserved to the Government, and none have been imported since the constitution of the Union. The introduction of honey is absolutely prohibited; while the introduction of foundation comb and of beeswax is allowed only under special permit. The Government has wide powers, not at present exercised, in respect of the keeping of bees and of measures for the eradication or suppression of bee diseases.

(vi) *Nursery Regulations.*—On the assumption that plants from nurseries are the most serious potential disseminators of certain classes of insect pests and plant diseases, the registration of plant nurseries is required, and such places are quarantined should the conditions appear to warrant this drastic action. Every nurseryman who sells fruit trees is compelled to have a cyanide fumigation chamber fulfilling specified requirements, and the fumigation of every fruit tree therein before it is allowed to leave the nursery is obligatory upon him. The registration of carnation nurseries, and of vine nurseries within, and confining their business to, the main viticultural area of the Cape Province, is not necessary, but any person who grows other kinds of perennial plants for sale is required to effect registration.

(vii) *Plant Removal Regulations.*—The requirements in connection with nursery stock are supplemented by requirements in respect of plants that are sent by rail or post by persons who are not nurserymen. The inclusion of any plant in a parcel must be divulged on the label or consignment note, and railway and postal officials are under instructions to see that consignments of plants with certain exceptions go to a plant inspector at the sender's expense for examination. The inspector may return diseased plants to the sender and fruit trees are fumigated whether apparently free of pests or not. A fumigation fee of 2s. 6d. or more is charged.

The removal of vines into the Graaff-Reinet district, and also into a large area comprising the main viticultural districts in the south-west of the Cape Province, is strictly prohibited. The removal of mango trees into Swaziland without the express permission of the Swaziland Government is also prohibited. Because of citrus canker, the removal of any citrus trees from a limited section of the Transvaal lying to the north and west of Pretoria, is forbidden; and the planting of any citrus tree, and even the growing of any citrus seedlings, within the same area, is illegal unless special authority is obtained from the Secretary for Agriculture. Owing to the danger of spreading *Pernicious* (San José) *Scale*, the special permission of the Department is also required for the removal of most kinds of plants from the Transvaal, Orange Free State, or Natal to the Cape.

(viii) *Orchard Insects.*—The important orchard pests of the Union are chiefly a limited number that are practically cosmopolitan in countries comparable in climate. On the whole the orchard pests in the Union are no worse than, if as severe as, they are in most other countries. Those of California, for instance, may safely be said to be much more numerous and more potentially dangerous; but California has a temporary advantage in that its closer settlement and far more advanced industrial conditions simplify the problem of combating pests by spraying and fumigation.

8. **Locust Administration.***—The law providing for the destruction of locusts was formerly administered by the Division of Entomology, but as that Division was unable without seriously neglecting its primary functions, to devote sufficient time to the eradication of the pest, a separate branch of the Department of Agriculture was formed and an officer, styled "Officer in Charge of Locust Administration" appointed. The Locust Law (Act No. 11 of 1911 as amended by Act No. 12 of 1922) makes it compulsory for persons to report any egg-laying that takes place on land occupied by them and to destroy any *voetgangers* that hatch out thereon. In the event of any person failing to do so, the Government carries out the work at his expense. Government assistance is granted in special cases in which persons, in spite of doing their utmost with the resources at their disposal, are unable to overcome the *voetgangers* before they reach the winged stage. The Government provides poison free of charge and issues pumps on loan. It is not possible to legislate effectively for the destruction of flying locusts, but every assistance is given and every effort made to encourage the farmers to co-operate with one another and destroy flying swarms at night-time. With a view to ensuring the adoption of a uniform policy throughout South Africa and consequent better control of the pest, arrangements were made with the Bechuanaland Protectorate and South-West Africa for the Union Locust Law to be applied in these two territories, and for the operations against the locusts therein to be controlled by the Union Officer in Charge of Locust Administration.

9. **Division of Chemistry.**—(i) *Organization of Division.*—The Division of Chemistry is charged with the performance of all the chemical work necessary for the purposes of the Union Government, whether routine or investigational in character, with the exception of that required by the Division of Veterinary Education and Research, which has its own chemical staff at Onderstepoort. In order to carry out this work, the Division of Chemistry has, under its full control and direct supervision, chemical laboratories at Cape Town, Johannesburg, and Pretoria. Chemical laboratories are also attached to the other schools of agriculture, and carry out whatever chemical work may be required by the respective schools in the course of their teaching and extension work. These laboratories are, for administrative purposes, under the schools which they serve, but their investigational and research work is co-ordinated and controlled by the Chief of the Division of Chemistry.

Of the eight laboratories, the only institution which undertakes chemical work of all kinds is that at Cape Town. The laboratory at Pretoria, and the five attached to the several schools of agriculture, confine their operations to purely agricultural chemical work; while the Johannesburg laboratory, with a single exception (that of wines and spirituous liquors), performs exclusively non-agricultural work.

(ii) *Food and Drugs Acts.*—Of the different kinds of work undertaken by the Division in its own laboratories, the most voluminous is that under the Cape *Food and Drugs Act* and the analogous laws of the other Provinces. The administration of these laws is under the control of the Department of Public Health, and the carrying out of this control is of a twofold character; at the various ports it is exercised, in regard to articles of food imported into the country, through the Customs officials; within the towns and districts of the Union it is performed by means of inspectors. In either case the samples are detained (by the Customs), purchased (by the inspectors), or seized (in cases where sale is refused) and submitted, for analysis, to the officers in charge of the laboratories at Johannesburg or Cape Town, as the case may be. The Cape Town laboratory is charged with the analysis of food and drug samples in the south-western part of the Union, the eastern and northern areas of the Union being assigned to the laboratory at Johannesburg. The Division of Chemistry has been charged with the analytical work under the Food and Drugs Laws only since 1st May, 1923, previous to which date the administration, as well as the technical operations, were carried out by the Public Health Department. The practice now is for the Division of Chemistry to report its findings to the Health Department, which thereupon institutes legal proceedings where necessary.

During the twelve months ended 31st December, 1924, this class of analyses performed numbered about 3,400, comprising over 1,800 in the Cape Town and over 1,500 in the Johannesburg laboratory.

* In order to further the investigations into the locust problem, an expedition, under the direction of the Under-Secretary for Agriculture (Col. G. N. Williams), was dispatched in July, 1924, through the Kalahari desert to South-West Africa to study the question *in loco*.

(iii) *Fertilizer Control.—The Fertilizers, Farm Foods, Seeds and Pest Remedies Act* is administered by the Department of Agriculture, and the analytical work in respect of fertilizers and farm foods is carried on almost entirely in the chemical laboratories at Cape Town and Cedara. The method of operation is very similar to that employed in respect of foods. A great portion of the fertilizers used by farmers comes from overseas,* and every consignment that arrives is sampled by the Customs officials at the respective ports, and a sample sent either to the Cape Town or to the Cedara laboratory. Furthermore, an inspector is employed for the purpose of travelling about the country and purchasing (or seizing) for analysis samples of fertilizers offered for sale at the various towns and villages throughout the country. A third method of control rests with the farmers themselves, but is unfortunately, scarcely ever made use of. Although analyses of fertilizers are principally carried out in the Cape Town and Cedara laboratories, chemists officially appointed to undertake work under the Fertilizers Act are also stationed at the divisional laboratory, Pretoria, and at the school laboratories at Elsenburg, Glen, Grootfontein, and Potchefstroom, and any farmer who is doubtful regarding the composition of any fertilizer delivered to him is at liberty to have such fertilizer analysed in the nearest laboratory if he complies with certain conditions.

Every one who sells a fertilizer must give or send the purchaser, *without any delay whatever*, an invoice stating the quantity sold, the name or brand of the fertilizer and its guaranteed composition. Farmers who do not receive such an invoice along with the fertilizer are invited to bring the facts to the notice of the Department. No fertilizer is allowed to be sold unless it has first been registered, and this registration must be renewed year by year. Registration does not take place until the completed form has been passed by the Division of Chemistry.

Apart from statutory work on fertilizers, all consignments of guano arriving from the Government Islands are regularly analyzed in the Cape Town laboratory, and at several of the laboratories plot experiments are being carried on in relation to the effect of phosphatic rock fertilizers on crops, and in others on the reversion of phosphatic fertilizers in certain types of soil.

(iv) *Wine, Spirits and Vinegar Act.*—The administration of this Act, like that of the Fertilizers Act, is under the control of the Department of Agriculture. The method of exercising that control, by means of the Customs at the ports and a travelling inspector within the Union, is also analogous. The chemical work under the Act is divided between the Cape Town and Johannesburg laboratories. During the twelve months ended 31st December, 1924, 638 samples were examined under the provisions of this Act (528 in Johannesburg and 110 in Cape Town); approximately 10 per cent. of these were found to have been adulterated.

(v) *The Adulterated Leather Act.*—This statute, which took effect from 30th June, 1924, prohibits the importation into or manufacture within the Union of leather containing barium or lead compounds or excessive quantities of glucose or mineral substances. The Act is operated very much upon the lines of the others referred to above, by means of the various Customs offices and local inspection, the administration in this case being vested in the Department of Mines and Industries. The operations of the Act, in so far as they concern imported leather, have to some extent been anticipated for several years past by a regular submission of samples of imported leathers to the laboratories at Cape Town and Johannesburg. During the twelve months ended 30th June, 1925, 422 such leathers were examined in order to ascertain to what extent they complied with the provisions of the Customs tariff.

(vi) *The Dairy Industry Act.*—Under this statute occasional analyses of milk, butter, and cheese are carried out, the Food and Drugs Adulteration Laws requiring a much larger share of the Division's services in respect of such articles. Considerably more time is, however, taken up in testing the accuracy of milk-and-cream test bottles, large numbers of which are imported and sold to co-operative societies and creameries.

(vii) *Customs and Excise Work.*—This branch of work, too, is divided between the Cape Town and Johannesburg laboratories, and may be grouped under two heads, viz., analytical control and tariff classification. The number of articles examined during the twelve months ended 30th June, 1925, exceeded 1,400 (inclusive of leathers). The Excise section of the work comprises usually the testing of a large variety of alcoholic fruit and other essences, and toilet and medicinal preparations, with a view to ascertaining the proportion of alcohol that they contain, and whether the composition of the article remains true to its registered formula. The Customs section consists of the examination of numerous articles of miscellaneous character for tariff classification purposes, such as paints, road materials, oils, carbide, metals, lubricants, etc.

* Before the war the annual import of superphosphates exceeded 40,000 tons.

(viii) *Toxicological and Forensic Work.*—This, as a rule, emanates from the Department of Justice, and embraces all poisoning cases, both fatal and otherwise, whether intentional or accidental, which come within that Department's cognizance. The work is confined to the laboratories at Cape Town and Johannesburg. In many cases the chemical investigation of some poisonous plant has been undertaken for the first time as a result of the prosecution of a Kaffir "medicine man" for culpable homicide, but there are also numerous cases every year in which the poison has been such a well-known substance as arsenic or strychnine. The forensic or chemico-legal work of the Division of Chemistry also includes analyses under the law relating to habit-forming drugs, as well as work connected with the operation of the liquor laws, and such other chemical investigations as the Department of Justice may need—for example, the analyses of counterfeit coin, and the detection of forged writings or problems relating to the illicit buying of gold.

(ix) *Municipal Work.*—A considerable amount of chemical work is carried out in the Cape Town and Johannesburg laboratories for local authorities. The municipalities of the two cities in which these laboratories are respectively situated naturally contribute the largest proportions, but many smaller local authorities add to the total, which for the period January, 1921, to April, 1923, amounted to 2,351 samples.

(x) *Analyses of Water.*—Numerous analyses of water are continually being carried out, in order to test its suitability (1) for drinking and cooking purposes, (2) for engine boilers, and (3) for agricultural or irrigation purposes. Services in this direction are performed for Provincial Administrations and the Administrations of Swaziland and Basutoland, for the Railway and Postal Departments, for local authorities, for medical practitioners, and in certain circumstances for private individuals. In addition, special water-supply investigations occasionally call for the attention of the Division.

(xi) *Soil Investigations.*—After many years the Agricultural Soil Survey of the Union has begun. The duty of organizing and directing it falls to the Senior Chemist in charge of the Pretoria laboratory, who formerly was stationed at Grootfontein. The staffs of all the laboratories (excepting that of the Johannesburg laboratory, where no agricultural work is done) are aiding in the survey, an arrangement which is calculated to ensure a maximum utilization of local knowledge. The work is one of many phases and not merely, as is often supposed, the taking and analysing of samples of soil: it involves a close study of agricultural practice and the correlation of this with soil and climatic conditions and the soil itself is investigated physically, chemically, and biologically. The Divisional laboratories proper, i.e. those at Pretoria and Cape Town, are not able to devote much time to the soil problems of individuals or to undertake analyses for farmers. Such work is done for them by the chemical staffs of the agricultural schools at Elsenburg, Potchefstroom, Cedara Grootfontein, and Glen.

Soil work at the various laboratories may be classed as (*a*) farmers' analyses, which are undertaken at the agricultural school laboratories, (*b*) soil survey work, and (*c*) soil investigations and research other than soil survey work, which are mainly carried on in the Cape Town and Pretoria laboratories. In some laboratories, such as that at Pretoria, numerous soil data have been accumulated over a number of years: these are in process of being worked up and published in the form of bulletins of the Division of Chemistry. In other laboratories (e.g. Cape Town and Potchefstroom) problems relating to inoculation of the soil with different varieties of bacteria are being experimented with. Some of the laboratories (Grootfontein and Pretoria, for instance) are studying new methods for the mechanical analyses of soil, and wherever occasion arises inspections are made of localities where peculiar soil questions manifest themselves.

(xii) *Mineral Work.*—The subject of the genesis of soils by the disintegration of rocks is one which must necessarily be studied in any comprehensive scheme of agricultural soil survey, and accordingly a special study of this subject is being carried out in the Grootfontein laboratory, although for the present the investigation is still almost wholly local in its scope. In a more comprehensive way the Division is co-operating with the Department of Mines in seeking to gain detailed information regarding the Union's mineral resources. In the Transvaal the necessary chemical work is, under contract, referred to a private firm of analytical chemists in Johannesburg, but in the Cape Province the *Mineral Law Amendment Act* of 1907 affords facilities for prospectors and other interested persons to submit mineral specimens to the Cape Town laboratory of the Division of Chemistry for report.

(xiii) *Tanning and Dyeing Investigations.*—The work of investigating the Union's tanning and dyeing resources has been located at the Cedara laboratory. This investigation is being carried out in co-operation with the Forest Department. The by-products of the tanning industry are also being studied; particularly the destructive distillation of wattle wood for the preparation of charcoal and other by-products.

(xiv) *Fruit Investigations.*—Various phases of citrus fruit culture are being investigated by the Division in their chemical relationships. The study of the citrus soils in the Barberton area is being proceeded with by the chemical section at Potchefstroom School of Agriculture. The effect of arsenical sprays on the composition and flavour of citrus fruits has been under investigation in the Cape Town laboratory, and a study is being carried on season by season of different varieties of citrus fruit, from various parts of the Union during their passage from the immature to the ripe condition. The problems involved include the relation of soil, climate, variety, stock, and treatment to composition. In regard to the ripening process of grapes similar investigations are in progress in the Cape Town laboratory with a view to ascertaining the changes in sugar-content, acidity, etc., as the berries mature. This work is to be pursued from year to year in connexion with several varieties of grapes, and will also be extended to include investigations into the composition of raisins. The culture of pineapples is being similarly investigated in the Pretoria laboratory. The effect of soil conditions on the vitality of the pineapple crop, the changes that the fruit undergoes on maturing, and the effects of canning on the fruit have all been partially studied, and the study is being continued. The increasing export of dried fruit from the Union has made it necessary to investigate the sulphur-content of the fruit prior to shipment, lest regulations of the countries of destination should be contravened. The laboratory at Elsenburg has been charged with this work.

(xv) *Analyses of Fodder Plants.*—The fodder plants in the Union, introduced as well as indigenous, in actual use as well as potential, form the subject of standing investigation. This work is very extensive as far as the types of plants examined are concerned, and very widespread in its area. In connexion with cultivated crops, several points are being investigated in the different laboratories, particularly relating to the effects of special fertilizers on the composition of the grain at Elsenburg and on the composition of legumes at Cedara. In the latter, also, a series of investigations into the composition of indigenous grasses is being continued from year to year. In the Potchefstroom laboratory the chemical composition of white and yellow maize and their comparative effects in feeding pigs and poultry is under investigation.

(xvi) *Plant Pharmacology.*—Allusion has been made above to the fact that in the native territories "Kaffir doctors" or "medicine men" charged with culpable homicide are frequently the means of bringing to light the potentialities of indigenous plants containing active principles. Such plants are made the subject of chemical examination by the Division when opportunity arises.

(xvii) *Drought Problems.*—The Senior Chemist of the Division at Pretoria was a member of the Drought Commission. Out of the work done by him in that capacity have arisen extensive investigations relating to the possibilities of tiding stock over periods of drought. Experiments in this direction have been carried out not only on sheep, but also on oxen and cows in milk. The feeding of farm stock with plants which have hitherto been looked upon as worthless and even as noxious has been carefully studied, and important results have followed. Two plants have had special attention in this connexion, namely, prickly pear (*Opuntia*) and American agave (*Agave americana*). The former has been shown to be a valuable drought fodder, capable, unaided, of keeping sheep alive for over eight months. It has also been shown that sheep need no water whatever if they get prickly pear in abundance. As a general purposes fodder prickly pear has been shown to be of the same order as turnips and mangels: it is an excellent fodder for milk production when fed in conjunction with lucerne hay. The American aloe has also been proved an excellent drought and general purposes fodder, but when fed alone to cows in milk it appears to lead to their early death.

(xviii) *Tobacco and Cotton.*—The chemical investigation of tobacco in regard to its nicotine-content was undertaken in the Cape Town laboratory a few years ago, and is now being continued in the laboratory at Potchefstroom. The Cape Town investigations comprised principally a study of the increase of nicotine in a special variety of the tobacco plant (*Nicotiana rustica*) during its period of growth, the percentage of nicotine therein being found to be far in excess of that in ordinary tobacco, a matter of high importance in the utilization of tobacco dust against insect pests and the preparation of tobacco extract. A more detailed investigation of cognate problems is being carried on at Potchefstroom, commencing with an inspection of the tobacco and cotton soils in the Rustenburg District, and including not only investigation of the nicotine-content of tobacco under various conditions and at successive stages, but also a more complete analysis of the tobacco plant and of its mineral constituents, as well as a study of the functions of nicotine in the plant itself.

In relation to cotton, a detailed study of cotton soils is being entered upon, and fertilizing experiments are being undertaken in several parts of the country under the direction of a Committee appointed in connexion with the activities of the British Empire Cotton Growing Corporation.

(xix) *Problems Relating to Stock Dipping.*—The dipping of stock occupies a somewhat special position along the East coast, and hence receives more attention in the Cedara laboratory than in any other similar institution in the Union. For this reason, too, an investigation of the principles underlying the oxidization of arsenic in dipping tanks has been continued in that laboratory for some years. Cases of arsenical poisoning amongst stock also occur more frequently in those parts than elsewhere, and the investigation thereof calls accordingly for more constant attention there than in other laboratories. On account of the risks involved and the repeated losses of stock sustained, the colouring of white arsenicals used in stock dipping is now prescribed by regulation.

(xx) *Health Work.*—To a certain extent this phase of the Division's work has already been outlined above, but there are other aspects of it which have still to be mentioned. For example, for some years past the Cape Town laboratory has been engaged on the preparation of ethyl esters of chaulmoogra oil, which are continually being needed by the Public Health Department for the treatment of leprosy. The chaulmoogra oil is collected in India, and is imported for this special purpose.

(xxi) *Phosphates.*—In view of the need of phosphatic fertilizers in South Africa, and the great advantage that would accrue from the establishment of a successful phosphatic industry in the country, investigations are now in progress to test the suitability of local deposits.

(xxii) *Research.*—Many problems involving agricultural chemical investigation and research are continually arising. These investigations comprise such subjects of study as the development of nitrates in certain farm soils, the formation of prussic acid in cyanogenetic plants, the absorption of mineral salts by plants, the conservation of soil moisture, the properties of clay, infertility of sub-soils, and numerous others. Every laboratory of the Department has some of these problems under investigation.

(xxiii) *Publications.*—Much of the work performed in the chemical laboratories of the Department is published in bulletin form. This irregular publication was organized a few years ago as the "Division of Chemistry Series," of which some five dozen issues have now appeared. These deal with practically all phases of work performed in the chemical laboratories, including soils, fertilizers, stock dipping, oils and fats, fodders, plant poisons, wines, grapes, tobacco, etc.

(xxiv) *Consultation Work, etc.*—Officers of the Division in various parts of the Union are often deputed to act on commissions or committees of various Departments of State, amongst the more recent being the Drought Commission, the Oil Fuel Commission, and the Committee for Purchase of Government Supplies. Reports are also furnished from time to time on various general questions, and a considerable amount of time is devoted practically every day to consultations with other officials, as well as with farmers, prospectors, and other persons seeking advice.

10. **Division of Extension.**—The establishment of this Division was largely due to the urgent recommendations made by the Drought Investigation Commission for bridging the gulf which had undoubtedly existed for a long time between the Department and the rural population, or, in other words, to bring the expert staff of the Department into closer touch with the farming community. The Division is intended to represent that link or bridge. The functions of the Division, therefore, lie in the direction of disseminating—on broad lines—expert agricultural knowledge as widely, as cheaply, and as expeditiously as possible, and to assist in organizing farmers. This work is done by means of grouping departmental officers from time to time on itineraries arranged in accordance with the needs of the centres or areas concerned and by means of the *Demonstration Train*, which is in reality an agricultural school on wheels. [See §13 (5) below].

As an additional means at the disposal of the Division, or what may be more correctly termed the main link between the Division and the rural population, is the *District Agent*. Ten such officers have been appointed and allocated to certain areas, within the limits of which their work will lie in advising farmers on agricultural matters, receiving applications for lecturers and demonstrators and transmitting these to the proper quarter, and assisting in agricultural organization. If the scheme of appointing District Agents proves a satisfactory and workable one, its expansion is inevitable.

11. **Division of Agricultural Economics, Markets, and Co-operation.**—The Division of Agricultural Economics, Markets, and Co-operation came into being early in 1925, and the already existing activities in connexion with the monthly crop and market report and co-operation were transferred to the new Division. The problem of every farmer, and of the Department of State responsible for furthering the business interests of the farmer, is to determine how the different factors of production can be made more effective. To do so, it is necessary to ascertain the efficiency of these factors on every farm and in every part of the country.

To determine this, investigation must be made into the management of the farm, the marketing of produce, and the organization of producers, middlemen, and consumers. Any shortcomings or difficulties in these respects must then be removed by means of education.

It is, however, necessary to begin upon the performance of certain essential groundwork extending in every possible direction, since the absence of investigation in one particular direction may, to a large extent, negative the results achieved in another.

The main aspects of the Division's duties, apart from administration, are those of (*a*) farm management and general economic questions; (*b*) marketing; and (*c*) co-operation; in respect of each of which investigation, education, and extension are necessary.

Each of the above sections has sub-divisions, such as, amongst others, the following:—

(a) *Farm Management and General Economic Questions.*

(i) Nature and types of South African farming in the different parts of the country in respect of the property of 90,000 white farmers.

(ii) Physical factors on farms and the various forms of land tenure—ownership, lease system, and so on.

(iii) Expenses, income, profits, or losses in connexion with farming in different parts of the country.

(iv) Cost of production, in different areas of the country, of various agricultural products.

(v) Nature of labour and labour requirements of farms.

(vi) Capital conditions and capital requirements of farms.

(vii) Other economic questions, such as transport, etc.

(viii) Reports on the condition of crops, market prices, etc., (Crop and Market Report).

(b) *Marketing.*

(i) Conditions at existing municipal markets in the large and other centres of the four Provinces. (There are about a dozen large markets, but nearly every small village has its own municipal market.)

(ii) Other marketing organizations, companies, exchanges, agents, and so on.

(iii) Markets in other parts of Africa.

(iv) Markets for maize, fruit, eggs, meat, etc., in Europe and other parts of the world.

For each of the important products, there are different market processes, and each product has its own peculiar features and difficulties in connexion with its collection, grading, and standardization, packing, storage, transport, financing, risks, sale, distribution, information, propaganda, and advertising.

(c) *Co-operation.*

(i) Its necessity, underlying principles, and methods; investigation; education; organization, and advice in connexion with the various products enumerated above.

(ii) Formation of co-operative societies, including framing of regulations, development of business, ensuring proper management, etc.

(iii) Sound development of co-operative societies, to secure which legislation, regulations, inspections, guidance, and assistance will, amongst other things, be necessary.

(iv) A study of social conditions generally prevailing on farms as a foundation for the development of co-operative undertakings and scientific methods.

Farmers in South Africa to-day probably suffer more loss through bad management and bad business methods than through wrong or faulty methods of production, and field and animal husbandry generally. How many farmers lay out their farms so as to secure the greatest possible economy in labour, and arrange the work so as to ensure the fullest possible employment of it throughout the year? How many farmers know anything about the cost of production? How many can keep books, without which production costs, payments, receipts, and profit and loss cannot properly be determined? How many know what actually happens to their produce in the process of marketing? How many have a proper conception of the principles and methods of co-operation? The management and business aspects of farming have hitherto been neglected, and there is need of much development in this direction.

12. **Grading of Agricultural Products.**—It has been generally recognized that the success of South African agriculture in relation to the great overseas markets depends largely upon the existence of a proper system of Government supervision and grading, with the object of ensuring that a satisfactory standard of quality in regard to staple products exported is generally maintained. Various laws have been passed and regulations made in this connection, principally in respect of dairy produce, fruit, grain, wool, meat, and hides and skins. Act No. 16 of 1922 provided that any agricultural product could be submitted to the authorities for inspection and grading on payment of a fee, and fees collected for any such product were to be placed to a special account, which could be utilized for the development of the particular branch of agriculture concerned.

13. **Agricultural Organization in the Union.**—The importance of agriculture to the Union is reflected in the activities of the rural community in safeguarding and furthering their many interests through the medium of societies of farmers formed for the purpose of co-operation with the Government and generally for mutual assistance in coping with the problems of the industry. Organizations of this nature were in operation in the two Dutch Republics and the British South African Colonies in earlier years, and their activities played an important part in the gradual removal of the difficulties which retarded the advancement of agriculture in their respective areas, with the result that the machinery whereby the interests of agriculturists in the Union of South Africa are promoted is now represented by a well-organized body exercising paramount influence in agricultural matters in the Union.

There are in each of the four Provinces of the Union a number of Agricultural Societies and Farmers' Associations, some four hundred in all, having as members a great many farmers representing the most influential and progressive section of the agricultural community. An important function of these bodies is the promotion of the various agricultural shows, of which those organized by the following Societies at the places mentioned are the most popular :—Western Province Agricultural Society (held at Rosebank about the end of February); Port Elizabeth Agricultural Society (held at Port Elizabeth in March); Central Agricultural Society (held at Bloemfontein in March); Witwatersrand Agricultural Society (held at Johannesburg at Easter); Pretoria Agricultural Society (held at Pretoria at the end of May); Royal Agricultural Society (held at Pietermaritzburg at the end of June); and Durban and Coast Agricultural Society (held at Durban about the beginning of July).

Most of the Societies are affiliated to one or other of the four provincial Agricultural Unions. The names and addresses of the respective secretaries of these provincial Unions are as follows :—

Cape Province Agricultural Union : James Woodin, P.O. Box 454, Port Elizabeth.
Natal Agricultural Union : D. M. Eadie, P.O. Box 572, Durban.
Orange Free State Agricultural Union : G. T. Welsford, P.O. Box 377, Bloemfontein.
Transvaal Agricultural Union : D. M. Allam, P.O. Box 937, Pretoria.

For each of these provincial Unions there is a *Standing Committee*, meeting at least four times in the calendar year, and there is an annual general meeting of each Union, attended by the delegates from the various affiliated bodies. From each of the provincial Unions ten delegates are chosen to form what is termed the *South African Agricultural Union*, which meets annually for the purpose of deliberating on matters affecting agriculture generally throughout the Union. A President is elected annually at each congress for the ensuing year and there is also an Executive Committee. The Secretary of the South African Agricultural Union is James Woodin, P.O. Box 454, Port Elizabeth. In addition to the delegates from the four provincial Unions, the adjoining territories of Rhodesia and Mozambique are also represented. The organization described has resulted in the creation of a system properly co-ordinated in such a manner that every interest of the agricultural industry is served thereby. Matters of local or parochial concern are dealt with by a network of organized bodies of farmers throughout the country. For purposes of wider but still provincial interest representatives are sent by these bodies to an annual congress, from which again a delegation is chosen for the final deliberative council at which general principles are considered. At all these congresses Government officers, for the most part experts on the subjects coming under discussion, are in attendance for the purpose of furnishing information on the work of the Government and advice generally on technical and other matters. The funds for carrying on the activities of these organizations are provided by subscriptions supplemented by grants from the Union Government and the Provincial Councils of the Cape and Transvaal.

An *Agricultural Advisory Board* was appointed by the Minister of Agriculture in February, 1920, to advise him on matters relating to agriculture. The Board consists of the Executive Committee of the South African Agricultural Union, the members of which are representative of the various provinces of the Union, and are elected at the annual conference of the Union. The members of the Board are called together from time to time by the Minister of Agriculture for the purpose of consultation, and to afford them an opportunity

of submitting their views on matters relating to agriculture and any proposed legislation in connection therewith. The Secretary of the Board is Mr. James Woodin, P.O. Box 454, Port Elizabeth.

The following is a representative list of bodies serving particular phases of the agricultural industry :—

(i) South African Stud-book Association (A. A. Persse, Secretary, P.O. Box 703, Cape Town).
This organization has the following Societies affiliated to it :—
(*a*) The Friesland Cattle Breeders' Association (Jas. Woodin, P.O. Box 544, Bloemfontein).
(*b*) The Shorthorn Society of South Africa (Cuthbert A. Pope, P.O. Box 173, Queenstown).
(*c*) The Afrikander Cattle Breeders' Society (P.O. Box 377, Bloemfontein).
(*d*) The Devon Cattle Breeders' Society of South Africa (R. Barker, P.O. Box 82, Queenstown).
(*e*) The South Devon Breeders' Society of South Africa (P.O. Box 260, Pietermaritzburg).
(*f*) The Ayrshire Cattle Breeders' Society of South Africa (J. G. Torrance, P.O. Box 4344, Johannesburg).
(*g*) The Aberdeen-Angus Cattle Breeders' Society of South Africa (G. Wilson, P.O. Box 6926, Johannesburg).
(*h*) The Hereford Breeders' Society of South Africa (J. G. Torrance, P.O. Box 4344, Johannesburg).
(*i*) The Hackney Horse Society of South Africa (R. Ovendale, P.O. Box 611, Bloemfontein).
(*j*) The Merino Stud Breeders' Association of South Africa (A. A. Persse, P.O. Box 703, Cape Town).
(*k*) The Pig Breeders' Society of South Africa (A. A. Persse, P.O. Box 703, Cape Town).
(*l*) The Sussex Cattle Breeders' Society of South Africa (J. G. Torrance, P.O. Box 4344, Johannesburg).
(*m*) Angora Goat Breeders' Society of South Africa (A. A. Persse, P.O. Box 703, Cape Town).
(*n*) Red Poll Cattle Breeders' Society (J. G. Fraser, P.O. Box 250, Bloemfontein).
(*o*) Jersey Cattle Breeders' Society of South Africa (R. H. Mason, P.O. Box 207, Pietermaritzburg).
(ii) Stud-book of Thoroughbred Horses of South Africa (per Jockey Club of South Africa ; Major F. J. Henley, Secretary, P.O. Box 183, Johannesburg).
(iii) The Nurserymen's and Seedmen's Association of South Africa (Secretary, P.O. Box 120, Bloemfontein).
(iv) The Western Province Beekeepers' Association (A. J. Hopper, Secretary, "Belmont," 64 Kloof Street, Cape Town).
The South African Association of Beekeepers, P.O. Box 6057, Johannesburg.
(v) The Co-operative Wine Farmers' Association of South Africa, Ltd., Paarl.
(vi) The South African Sugar Association (P.O. Box 572, Durban).
(vii) The South African Maize Breeders', Growers', and Judges' Association (P.O. Box 3609, Johannesburg).
The South African Grain Trade Association, (P.O. Box 921, Johannesburg).
(viii) The South African Poultry Association (H. N. Wheeldon, P.O. Box 6463, Johannesburg).
(ix) The South African Co-operative Creameries Association (Fraser & Scott, Bloemfontein).
The Secretary, East Griqualand Co-operative Cheese Federation, Kokstad.
(x) The Fruit Growers' Co-operative Exchange of South Africa, Ltd. (P.O. Box 1158, Pretoria).
(xi) Farmers' Meat Industries, Ltd., Pietermaritzburg.
Central Agency for Co-operative Societies, Ltd. (P.O. Box 1015, Johannesburg).
The South African Co-operative Cotton Growers, Ltd. (P.O. Box 1462, Durban).
The Central Co-operative Cotton Exchange, Ltd. (P.O. Box 1462, Durban).
Federated Farmers' Co-operative Association of South Africa, Ltd. (P.O. Box 414, Johannesburg).

In connection with the above list, it is to be noted that in recent years the distinctive tendency in the sphere of agricultural organization in the Union has been the growth of co-operative effort in the shape of farmers' associations and exchanges for the marketing of agricultural and pastoral products.

14. **Legislation.**—The following statement gives a summary of agricultural legislation since 1910, together with a list of matters dealt with in Government Notices and Proclamations under the various Acts :—

AGRICULTURAL LEGISLATION, 1910 TO 1925.

Act.	Matters Dealt With in Government Notices and Proclamations.
Agricultural Pests Act, No. 11 of 1911, as amended by Act No. 32 of 1917, Act No. 12 of 1922, and Act No. 6 of 1924	Bee importation restrictions ; citrus trees ; grapes and vines ; importation of beeswax, foundation comb, fruit, plants, and exotic animals ; importations from Portuguese East Africa, Rhodesia, and South-West Africa ; lucerne seed ; maize and barley ; nurseries registration ; pernicious scale ; ports of entry ; prohibited areas ; wart disease on potatoes.
Agricultural Pests (Citrus Canker) Act, No. 10 of 1919	
Co-operative Societies Act, No. 28 of 1922, as amended by Act No. 38 of 1925	Registration.
Dairy Industry Act, No. 16 of 1918	Babcock system ; butter, cream and milk inspection, testing, and grading ; distinctive marks ; regulations and forms.
Drought and Flood Distress Relief Act, No. 28 of 1916	

AGRICULTURAL LEGISLATION, 1910 TO 1925—(*continued*).

Act.	Matters Dealt With in Government Notices and Proclamations.
Drought Distress Relief Act, No 16 of 1924	Relief of distress caused by drought.
Fencing Act, No. 17 of 1912, as amended by Act No. 11 of 1922	
Fertilizers, Farm Foods, Seeds, and Pest Remedies Act, No. 21 of 1917	Fertilizers and farm foods; sale of pest remedies; stock dips.
Agricultural Products Grading Act, No. 16 of 1922	Cheese; citrus fruit; cotton lint and seed cotton; cotton levy; deciduous fruit; dried fruit; eggs; egg levy.
Registration of Pedigree Live Stock Act, No. 22 of 1920	Extension of Act to South-West Africa.
Diseases of Stock Act, No. 14 of 1911, as amended by Act No. 25 of 1916, No. 31 of 1923, and No. 18 of 1925	Anthrax inoculation and prevention; brands; compensation for animals destroyed; contagious abortion; co-operation between Government officials and stock owners; dogs; dourine; East Coast fever; enforced dipping; exports to United States; immunization and insurance of horses and mules; importation from Great Britain, neighbouring territories, Netherlands, Rhodesia, South-West Africa; movement of cattle from Natal and Griqualand East; ports of entry; reporting, selling, buying, moving, and disinfecting of stock, etc.; reporting sickness or death of stock travelling on public roads; scab; sheep removal prohibition; brands, dipping tanks, and movement of stock in Transkei; tuberculosis.
Stock Theft Act, No. 26 of 1923. Cape Province Cattle Cleaning Act, No. 11 of 1910, as amended by Act No. 32 of 1917	
Agricultural Produce Export Act, No. 35 of 1917	Bacon and ham; butter; cheese; dried fruit; eggs; eggs levy; lucerne seed; maize; meat.
Angora Goat Export Prohibition (Repealing) Act, No. 17 of 1922	
Fruit Export Act, No.17 of 1914, as amended by Act No. 31 of 1917	Citrus fruits; deciduous fruits; levy.
Beef Export Bounties Act, No. 12 of 1923	General.
Restriction on the Importation of Wine and Spirits Act, No. 14 of 1921	
Sale of Agricultural Produce on certain Mines Act, No. 19 of 1917	General.
Wine, Spirits, and Vinegar Act, No. 15 of 1913	
Wine and Spirits Control Act, No. 5 of 1924	
Agricultural Industries Advancement Act, No. 16 of 1925	Levies on agricultural produce.
Orchard Cleansing Act, No. 13 of 1925	Eradication of insect pests in orchards.
Public Auctions and Transactions in Live Stock and Produce Act, No. 22 of 1925	Regulation of sales by auction of live stock and produce.
Wild Birds Export Prohibition Act, No. 6 of 1925	Control of export of wild birds.

NOTE.—In addition to the above, agricultural questions are indirectly affected by legislation dealing with other matters, e.g. land settlement and tenure, land bank, labour and wages, natives.

§ 2. Live Stock and Pastoral Production.

1. **Horses, Mules, and Asses.**—(i) *History of Horse-Breeding.*—The horse is not indigenous to South Africa, but was, on the other hand, the first domestic animal to be imported nearly three centuries ago, and subsequently played an important part in establishing the supremacy of the white race and furthering its extension and development. The first

horses were imported from Java, and were the descendants of *Arabian* and *Persian* horses sold to the Eastern nations by Arabian traders during the fifteenth and sixteenth centuries. From time to time new blood was obtained from Arabia (1689), South America (1778), North America (1782), England (1782), and Spain (1807). Notwithstanding all the fresh blood obtained from these quarters, a close study of the horse stock of those countries at the times of importation indicates that *Arabian* blood was nevertheless predominant. A little over a century after the arrival of the first horses the industry of horse-breeding had flourished so well that the first shipment of remounts was exported to India, thus opening a remunerative trade which brought the horse from the Cape fame not only in India but in Egypt, and even in the Crimea. Further particulars as to the history of South African horse-breeding will be found in previous issues of this *Year Book*.

(ii) *Natural Suitability of the Country for Horse-Breeding.*—The suitability of the Union for horse-breeding has been recognized since the earliest times. The climate, the pastures, and soils, combine to produce a horse with a good constitution, strong bone, tendon, and hoof. The localities naturally best adapted to the profitable rearing of horses are those where soils of the Karroo system of rock formation prevail. Soils of this nature are generally rich in lime and such constituents as are required to yield nutritious pastures. The comparatively small size attained by the South African horse is largely due to deficient nutrition of the young stock during the winter months and prolonged periods of drought. The Karroo system in varying formation spreads over almost the whole of the Union, and wherever such soils appear horse-breeding can be taken up with success. With the exception of the coastal regions of Natal and immediately south of Natal, the parts north of the districts adjacent to the Vaal River in the Transvaal and the extreme barren parts of Bechuanaland, the Union throughout is eminently suited for horse-breeding. Mules do well wherever horses flourish and the ass thrives well even where horses cannot exist. Generally it may be observed that horses do well wherever conditions are best suited for sheep.

(iii) *Export of Horses.*—The export of South African horses, apart from the export of thousands of remounts which began as early as 1769, was continued for breeding purposes in 1810, when Australia obtained from South Africa the first horses introduced into that country. Importations were repeated until Australia's horse-breeding was firmly established. Many stallions and other horses were bought by the rich Nabobs of India, and for a time South African horses were famous in India as racers. Throughout the nineteenth century horses were exported in varying numbers and quality to distant parts of the world, and in large quantities to Mauritius, Ceylon, Bourbon, South America, and various parts of India. The foundation stock of the late German Colonies and of Portuguese territories, as well as of the whole of Central Africa where horses can exist, is by preference based on the *Cape Horse*.

(iv) *Present Type of Horse.*—Whatever foreign blood may be in the veins of the horse stock of the Union, that stock still forms a type by itself. The type is still predominantly of *Thoroughbred* strain, while the *Arab* and improved blood of the last century has not quite disappeared. None of the other breeds of horses has established itself to any important extent, although small studs of good animals of other types exist throughout the Union. The tendency at present is to breed from heavy sires in order to increase the size, and to produce a type for general utility.

(v) *Mules.*—The ass was imported into South Africa at a very early date from the Cape Verde Islands. Most probably these asses were of Spanish origin and of Andalusian stock. Early in the eighteenth century the area now known as the Malmesbury District was settled, and grain farming became a special feature of the rich live stock farmers. The most famous studs, as well as the Government Experimental and Stud Farm, were situated here, and mule-breeding seems to have been taken up at an early date, in order to supply faster draught animals than the ox to cope with the ever-expanding corn fields. This supply has always been insufficient, and the studs in the north, in the old and new Hantam, took up the breeding of mules. Ultimately the industry became general throughout the country with intensive areas in the best districts. The South African mule, although somewhat light, is a most useful animal, very hardy, of excellent constitution, willing, and capable of much work to an advanced age. Good mules are always in demand and fetch high prices.

(vi) *Statistics.*—The following table gives particulars of horses, mules, and asses in the Union. In 1919, 1920, and 1922 the censuses did not cover either the native areas or the towns, and in 1923 and 1924 the censuses did not cover the towns. The numbers shown in 1918 and 1921 have therefore, for convenience of comparison, been assumed and included for the intervening and subsequent years. Details of imports are given under the heading "Living animals" in Chapter XVIII.

HORSES, MULES, AND ASSES IN EACH PROVINCE AT GENERAL CENSUSES OF 1904 AND 1911, AND AGRICULTURAL CENSUSES, 1918 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
HORSES.					
1904	255,060	66,574	51,654	76,251	449,539
1911	333,962	75,567	89,160	220,725	719,414
1918	367,605	65,839	106,698	240,880	781,022
1919	387,355	74,994	124,106	269,891	856,346
1920	376,760	78,420	133,508	262,644	851,332
*1921	417,315	85,655	147,313	270,185	920,468
1922	431,588	95,242	160,473	300,791	988,094
1923	408,489	102,180	149,317	262,324	922,310
1924	390,700	104,211	157,157	261,128	913,196
MULES.					
1904	64,433	4,450	43,917	21,934	134,734
1911	47,059	15,602	25,275	5,995	93,931
1918	52,086	6,983	13,818	11,672	84,559
1919	59,351	6,717	15,155	15,369	96,592
1920	65,958	6,731	17,351	18,197	108,237
1921	71,858	6,312	19,332	19,287	116,789
1922	78,757	7,197	21,260	21,773	128,987
1923	81,895	9,069	22,759	19,662	133,385
1924	84,159	10,116	25,175	19,657	139,107
ASSES.					
1904	100,470	2,418	32,496	6,546	141,930
1911	191,086	28,018	106,048	11,558	336,710
1918	315,333	48,905	149,411	40,667	554,316
1919	363,822	50,363	167,680	41,546	623,411
1920	361,790	52,699	192,040	41,816	648,345
1921	391,602	54,513	229,667	46,456	722,238
1922	435,911	60,805	259,226	52,633	808,575
1923	422,069	66,310	245,164	51,494	785,037
1924	414,600	68,614	251,456	52,261	786,931

* A detailed classification of the number of horses in the Union in 1921, according to age, will be found in the sixth and previous issues of this *Year Book*.

2. **Cattle.**—(i) *History of Cattle-Breeding.*—The first colonists who landed at Table Bay found large herds of cattle in the possession of the nomadic native tribes. The resources of the country in respect of the supply of fresh meat induced the Dutch East India Company to provision its ships trading with India and the East with supplies of this kind from the Cape of Good Hope. At a later stage, during the days of the pioneer colonists, cattle had to be relied upon, in the absence of railway communication, for the transport services required for the development of the country. As a consequence cattle were bred which possessed great hardiness, rustling qualities and constitution, and the capacity to stand long treks, and which could be relied upon for draught purposes. In the course of time there was created a distinct breed which came to be known as the *Afrikander*. Remarkable progress has been made within the last decade in improving the early maturing beef and fattening qualities of this breed.

Until within comparatively recent times the introduction of European breeds was confined to the importation of *Friesland* cattle from Holland, the first importation having taken place about 1780. Not until the nineteenth century were importations of British breeds made. As far as is known, the earlier animals consisted chiefly of *Shorthorns* and *North Devons*. The outbreak of rinderpest in 1896 decimated the herds of cattle which had by that time become established in considerable numbers in the northern Provinces and in the eastern Cape Colony, and a few years later the numbers of cattle were further depleted through the ravages of the Anglo-Boer war.

Since then a notable advance has been made in cattle-breeding. The prevention and control of stock diseases, now extended to all parts of South Africa, have reduced the risks previously involved, and farmers and others are now disposed to invest money in cattle-breeding operations. Reliable statistics are not available for the period prior to 1904.

The census returns taken in 1904 show that the cattle of South Africa numbered 3,500,000 head. In 1911 the number had increased to 5,797,000 head in the Union, in 1918 to 6,852,000, and in 1924 to 9,898,000. By far the larger proportion of these animals is of mixed breed, possessing a marked infusion of *Afrikander* and native blood, though large numbers show the influence of several of the improved European breeds. During the last decade in particular a marked improvement has been noticeable in the herds throughout the country, brought about by importations of sires and by the establishment of pure-bred herds, from which bulls in considerable numbers are now bred and used for the grading up of ordinary herds. A great part of the impetus was due to importations by the Government and object lessons in management at the Experiment Farms. The formation of the South African Stud-Book Association in 1905, and, at a later stage of natural development, of different Breed Societies affiliated thereto, which are enumerated elsewhere in this chapter, has promoted the breeding of pure-bred stock and protected and fostered the interests of breeders. Each of the following breeds has its Breed Society: *Friesland, Shorthorn, Hereford, South Devon, Aberdeen-Angus, Ayrshire, Afrikander, Sussex, Red Polls, Jerseys,* and *Devon.* Other breeds to be found in the country, though in comparatively small numbers, are *Brown Swiss, Siementhaler, Kerry,* and *Galloways.* The records of the Stud-Book Association indicate the progress which is being made in the breeding of pure-bred cattle. In the first volume of the Stud-Book the entries numbered about 400, while in Volume XV, 6,917 head were registered. This may be taken as approximately the number of pedigree cattle bred and imported during the previous year.

Under the Ocean Mail Contract of 1912 pedigree cattle are conveyed to South Africa free of freight. The number of cattle introduced up to the 31st December, 1923, as the result of this provision was 3,367; in 1924, none; and in 1925, 91.

During recent years the prospects of an export trade have stimulated breeders to improve the type of cattle bred for beef purposes, and the fattening of cattle is receiving increasing attention. The Department of Agriculture has at its agricultural schools and experiment farms conducted upon oxen of different types and ages a large number of feeding experiments which have proved of value to breeders and feeders, and experimental shipments of the meat of these oxen to the London market have provided useful information. Good breeding stock is in considerable demand, but with the general fall in value prices are low.

(ii) *Number of Cattle in the Union.*—The figures given in the table hereunder represent the number of cattle in the Union as returned at the general censuses of 1904 and 1911, and at the censuses of pastoral production beginning with 1918. In 1919, 1920, and 1922 the censuses did not cover either the native areas or the towns, and in 1923 and 1924 the censuses did not cover the towns. The numbers shown in 1918 and 1921 have therefore, for convenience of comparison, been assumed and included for the intervening and subsequent years.

CATTLE IN EACH PROVINCE, 1904, 1911, AND 1918 TO 1924.

Year	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904 (General Census).....	1,954,390	666,903	515,956	363,204	3,500,453
1911 „ „	2,715,330	456,087	1,339,298	1,286,234	5,796,949
1918 (Census of Agriculture)..	2,410,934	977,252	1,888,443	1,575,295	6,851,924
1919 „ „ ..	2,593,693	1,111,138	2,083,525	1,744,600	7,532,956
1920 „ ..	2,573,591	1,209,717	2,427,159	1,721,803	7,932,270
*1921 „ „ ..	2,810,903	1,452,017	2,561,618	1,732,551	8,557,089
†1922 „ „ ..	2,976,168	1,566,232	2,762,044	1,896,225	9,200,669
1923 „ „ ..	3,212,225	1,789,471	2,743,518	1,862,122	9,607,336
1924 „ „ ..	3,323,651	1,892,848	2,832,620	1,849,309	9,898,428

* A detailed classification of the cattle enumerated at the 1921 census, according to age, will be found in the sixth and previous issues of this *Year Book.*

† Information with regard to breeds of cattle in 1922 will be found in *Year Books* Nos. 6 and 7.

3. **The Beef Industry in South Africa.**—(i) *Cattle Ranching.*—In the natural development of any new country's agricultural resources cattle ranching forms the pioneer method of farming. With the growth of population and development of the railway system closer settlement follows. Land becomes too expensive for the old wasteful form of production, and ranching is relegated to the more isolated grazing regions, its place being taken by more intensive systems of farming.

As necessary conditions to make ranching a profitable enterprise, the following may be mentioned: Cheap land, good grazing all through the year, suitable water supply, cheap breeding stock, proper herd and veld management, and suitable markets. Of these the first two are of paramount importance.

The main potential ranching areas of the Union are situated in the northern Transvaal. With the exception of a section of ranching country in Bechuanaland, it is confined wholly to the northern Transvaal, and in particular to the Districts of Waterberg, Zoutpansberg, Pietersburg, and Lydenburg, and to smaller sections of Rustenburg, Marico, and Barberton. Good winter grazing is to be obtained on the so-called " sweet " veld of the Bushveld, a type of veld that forms the mainstay on the range during the winter months. Solely sweet veld is, however, undesirable. It is inclined to be too washy in summer, does not come away as early in the spring, and is not as drought resistant as the " sour " veld. In selecting ranches it is important that a thorough study of the grazing value of various types of veld be made first. There are certain farms and sections in the ranching areas that will probably only be suited to cattle farming. On the other hand, many farms will, with closer settlement, have inevitably to be developed, for economic reasons, on more intensive lines.

It must be pointed out that in selecting a ranch, besides the grazing value, possible future development must be considered. It follows that if there are possibilities for cotton, citrus, dairying, or other types of farming, one can afford to pay more per " unit of carrying capacity "* than otherwise. A ranch so chosen will increase in productive capacity as time goes on. With the insufficient data available it is difficult to state accurately the ranching value of a " unit of carrying capacity," but it may safely be taken at somewhere between £3 and £5 per unit at the outside. The quality of the animals herded also plays an important part in determining the maximum value per unit of carrying capacity. The average investment of £4 per unit would mean that from 4s. to 5s. interest would have to be reckoned per head per year on the capital investment for grazing, interest being taken at from 5 to 6 per cent. The fencing required on farms of heavy carrying capacity is also much less than where there is a low carrying capacity. Nearly all Bushveld farms have suitable timber for fencing-posts, so that the expense of fencing is not great. Provided ranches are selected with a view to their possible future agricultural development, experience has shown that the interest per unit of carrying capacity is an unfair charge, since the increased future possible production on and increased value of the land is greater, reckoned per decade, than the 5 or 6 per cent. charge on capital invested in land. Then, also, in the selection of ranching land natural shelter and availability of water must be considered. The latter is generally amply supplied by running streams, dams, boreholes, etc., and the natural bush provides sufficient shelter for stock.

There are over nine million head of cattle in the Union. The cattle population is densest in the eastern Transvaal, Orange Free State high veld area, in Natal, and the eastern coastal area of the Cape Province. These areas include a large number of dairy stock. The undeveloped typical ranching areas do not, as yet, show a very heavy cattle population. The great majority of cattle in the Union consist of herds of indigenous cattle possessing a marked infusion of Afrikander blood. This type of heifer or cow is cheap, and admittedly forms the best foundation on which to build. It should be the aim of the rancher to select a foundation female herd consisting of the utility type of cow: large, roomy, and vigorous. It is generally advisable to select the foundation herd in the area where ranching is to be practised; such animals are acclimatized, and the initial losses are therefore much reduced. If selected in sections of the country where redwater and gall-sickness are not virulent, only young stock inoculated against these two tick-borne diseases is recommended. If selected and treated as suggested, the initial losses will be very small. A suitable cattle dipping tank is a necessary adjunct on every ranch. If regular summer and winter dipping is carried out, all tick-borne diseases can be controlled effectively.

The bull is naturally the most important individual in the herd. The improvement effected, in the first cross, by suitable pure-bred sires is phenomenal. The second cross may still be successful, but subsequent crosses, as a rule, under ordinary conditions, do not produce satisfactory results. This, it is considered, is largely because the vigour of heterozygosis has been lost, and during lean years the very early maturing animal fails to make profitable growth. Until such time as a definite one can be stated, it is suggested that a breeding policy on the following lines will be safe and productive of good results :— The foundation stock of selected native cattle is crossed with pure-bred bulls belonging to the Shorthorn, Angus, Sussex, Hereford, or Devon breeds. The second cross is made with similar bulls of the selected breed. The heifers produced out of this mating are crossed back to pure-bred improved Afrikander bulls. The heifers thus produced are again mated to bulls belonging to the original beef breed selected for two successive generations. The process is repeated so that after every two infusions of blood of the very early maturing beef breeds there is a top cross of the pure-bred improved Afrikander. This policy does not sacrifice early maturity, beef form, hardiness or rustling qualities. There is, further, an infusion of vigour due to heterozygosis for two generations out of every three. This introduction of vigour, which can be noticed in any first cross, is an important factor in making the policy a safe one.

Many ranching areas are already progressing towards agricultural production in other directions. The areas where farmers will devote their energies to the production of choice

* A " unit of carrying capacity " is the amount of land required to carry a mature ranch cow for one year.

beef are in the heavy maize-producing sections of the country, and perhaps also, to a less limited extent, in the other heavy cropping areas of the Union. The future system of beef production that South Africa will have to follow for the export trade, as well as special local markets, is the production of the store on the ranch and the finishing off of this animal in the maize sections during the late winter and early summer months.

(ii) *Marketing.*—The export of beef from South Africa commenced in 1914 and continued on a comparatively large scale until 1920. Export since then has been small and unimportant, as prices in Europe have been low, and cattle raisers in this country were not compelled to market their cattle. In 1923, Parliament passed the *Beef Export Bounties Act*, whereby ½d. per lb. is paid on all beef exported and ¼d. per lb. on the live weight of all cattle exported. Under this Act cold storages handling the beef must be registered, and their charges must be approved by the Government; further, they must undertake to give services to producers at these approved charges. Cold storage accommodation, facilities for the slaughtering and preparation of cattle for export, and efficient handling of by-products in order to make full use of same, already exist at the chief centres of the Union. At the principal ports there are cold storage facilities in excess of present requirements. Provision is made by the *Agricultural Produce Export Act* of 1917 for the inspection and grading of meat for export. In order to assist the live stock industry the Railway Administration gives specially reduced freights both for live cattle and for dead meat intended for export. (See also paragraph 12 below.)

Geographically, South Africa is very favourably situated for meat export to the European markets. The refrigerated steamer accommodation available, as well as freight charges, compare more than favourably with those operating in the case of the great meat exporting countries.

The organization of the meat trade within the Union, more especially in the Johannesburg market, has formed the subject of inquiry by various Government Commissions since 1918, when attention was first drawn to the matter by the Cost of Living Commission. A Meat Trade Investigation Commission, appointed in 1919, made several recommendations, and the question was in March, 1922, taken up by the Board of Control under the Profiteering Act, 1920, which confined its inquiry to the conditions in the Johannesburg market. Criticisms were directed by the Board against certain features of the organization of the Johannesburg meat trade. The subject of the meat trade in general was further inquired into by a Select Committee of the House of Assembly in 1922, which approved of the co-operative principle in the marketing of meat and made a number of recommendations as to the organization of the internal meat market and the export trade.

(iii) *Inquiry by Board of Trade and Industries into Meat Trade.*—Recently the Board of Trade and Industries held an inquiry into the meat trade in general.

The terms of reference were :—

(*a*) the application of the contract entered into on the 22nd day of March, 1898, between the Government of the late South African Republic and the late Pieter Johannes Potgieter and Hendrik Jacobus Schoeman, forming the basis and origin of the "Transvaal Koelkamers, Beperkt."

(*b*) The control exercised by the Government and the financial relationship created between the Government and the "Transvaal Koelkamers, Beperkt," under and by virtue of the contract mentioned under (*a*).

(*c*) The operations of the "Transvaal Koelkamers, Beperkt," in respect of the meat trade in the Union of South Africa, from its inception to the present date, and the relation of that body to any other concern trading in live stock or meat or other cold storage products.

(*d*) The position of the concern known as "The Imperial Cold Storage, Limited," in connexion with the meat trade, the trade in fresh fish, and the supply of foodstuffs generally in South Africa, including the South-West Protectorate.

(*e*) The acquisition by the said Imperial Cold Storage Company, Ltd., of the companies known as :

(1) the South African and Australasian Supply and Cold Storage Company, Ltd. ;

(2) the South African Supply and Cold Storage Company, Ltd. ;

(3) the Cold Storage Trust, Limited.

(*f*) The interests and the controlling power exercised by the Imperial Cold Storage Company, Ltd., in and over other South African concerns which are the suppliers of foodstuffs of any kind.

(*g*) The question whether, and if so in how far, a trust or ring in meat, fish, and other foodstuffs has been created in South Africa and the best means of remedying any unsound condition which may have sprung therefrom.

(*h*) The market values of stock in the large centres of the Union, compared with :

(1) the prices charged to wholesale dealers ; and

(2) the prices obtained in retail trade by butchers ; the main causes of extensive fluctuations : facilities prevailing to enable farmers to obtain the best quotation for their cattle or otherwise ;

(3) what reasonable policy should be adopted for improvement of the conditions arising under (*h*) (*1*) above.

(*j*) The export of meat from the Union, especially with a view to the prices realized overseas as compared with the prices levied by the retail trade in South Africa and charged to the public.

In its report the Board makes far-reaching recommendations, the principal of which is that the Government should, in conjunction with co-operative societies, provide cold storage facilities at Cape Town, Johannesburg, Durban, De Aar, Port Elizabeth, and East London. The cool stores should be established primarily for meat producers, but should be available for other perishable foodstuffs. (Report No. 54.)

(iv) *Imports and Exports of Beef.*—For some time after the Anglo-Boer war the herds were so depleted in numbers and the demands for cattle for breeding purposes and transport work were so considerable that large quantities of frozen meat had to be imported to supply the requirements of the population, military and civilian. Since then, however, conditions in this respect have changed fundamentally, and the importation of beef has been reduced to negligible proportions.

The following tables show (i) the imports and exports of beef in the oversea trade since 1910 ; (ii) the number of animals slaughtered in abattoirs during the years 1918–19 to 1923–24 :—

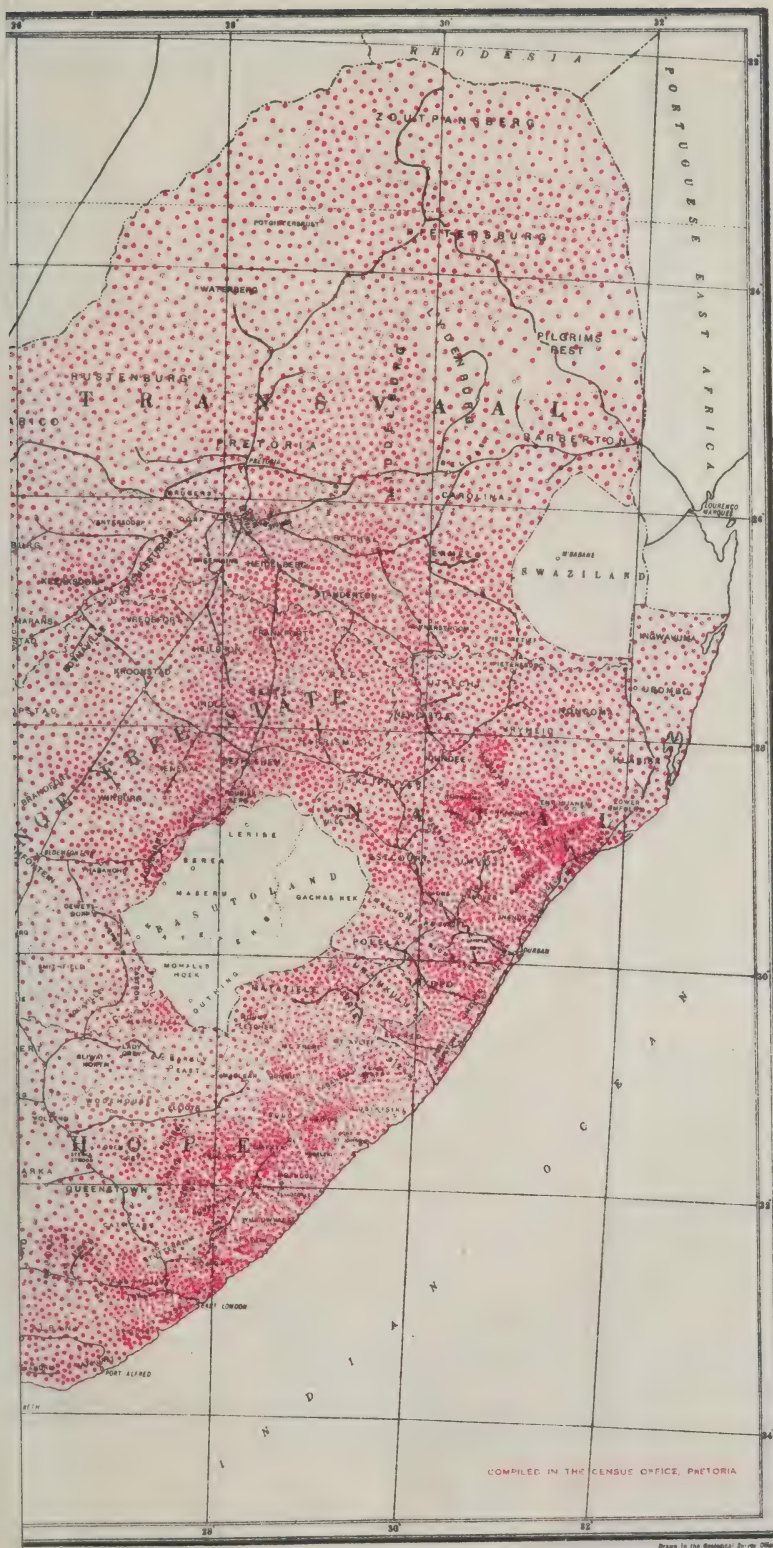
(i) **BEEF—IMPORTS AND EXPORTS (OVERSEA TRADE), 1910 TO 1924.**

YEAR.	IMPORTS.			EXPORTS (SOUTH AFRICAN PRODUCE).		
	Weight.	Declared Value.		Weight.	Declared Value.	
		Total.	Per 100 lb.		Total.	Per 100 lb.
	lb.	£	£ s. d.	lb.	£	£ s. d.
1910.....	2,989,044	30,553	1 0 5	5,027	98	1 19 0
1911.....	8,092,316	73,976	0 18 3	229,498	4,844	2 2 3
1912.....	9,023,705	88,284	0 19 7	296,834	6,729	2 5 4
1913.....	8,949,753	80,516	0 18 0	121,264	3,161	2 12 1
1914.....	737,950	10,960	1 9 8	463,767	10,039	2 3 4
1915.....	16,957	365	2 3 1	5,971,727	106,112	1 15 6
1916.....	6,969	139	1 19 9	19,260,612	392,832	2 0 9
1917.....	5,680	142	2 10 0	49,997,410	1,111,954	2 4 6
1918.....	—	—	—	21,135,367	542,101	2 11 4
1919.....	—	—	—	46,363,180	1,138,272	2 9 1
1920.....	83,862	1,119	1 6 8	14,435,455	367,573	2 10 11
1921.....	9,033	177	1 19 2	3,395,005	92,467	2 14 6
1922.....	5,520	74	1 6 10	1,740,860	34,893	2 0 1
1923.....	5,748	181	3 3 0	1,534,853	27,170	1 15 5
1924.....	—	—	—	9,601,043	118,966	1 4 9

(ii) **BEEF—NUMBER OF ANIMALS SLAUGHTERED IN ABATTOIRS DURING THE YEARS 1918–19 to 1923–24.**

Year.	Sheep and Goats.	Lambs.	Cattle.	Calves.	Pigs.	Total.
	No.	No.	No.	No.	No.	No.
1918–19...	1,805,398	134,596	350,212	15,128	147,309	2,452,643
1919–20...	2,036,373	53,047	366,932	16,585	166,805	2,639,742
1920–21...	1,937,829	78,248	330,420	15,692	117,729	2,479,918
1921–22...	2,332,366	112,986	312,544	20,803	123,133	2,901,832
1922–23...	2,371,454		381,285	24,163	163,456	2,940,358
1923–24...	2,369,497		445,350	28,294	159,562	3,002,703

4. **Dairying.**—(i) *General.*—Experience has shown that a considerable portion of the Union is well adapted to dairy farming. The climate is mild, and in those districts in which the rainfall is good, cattle thrive well on the natural veld for from six to eight months of



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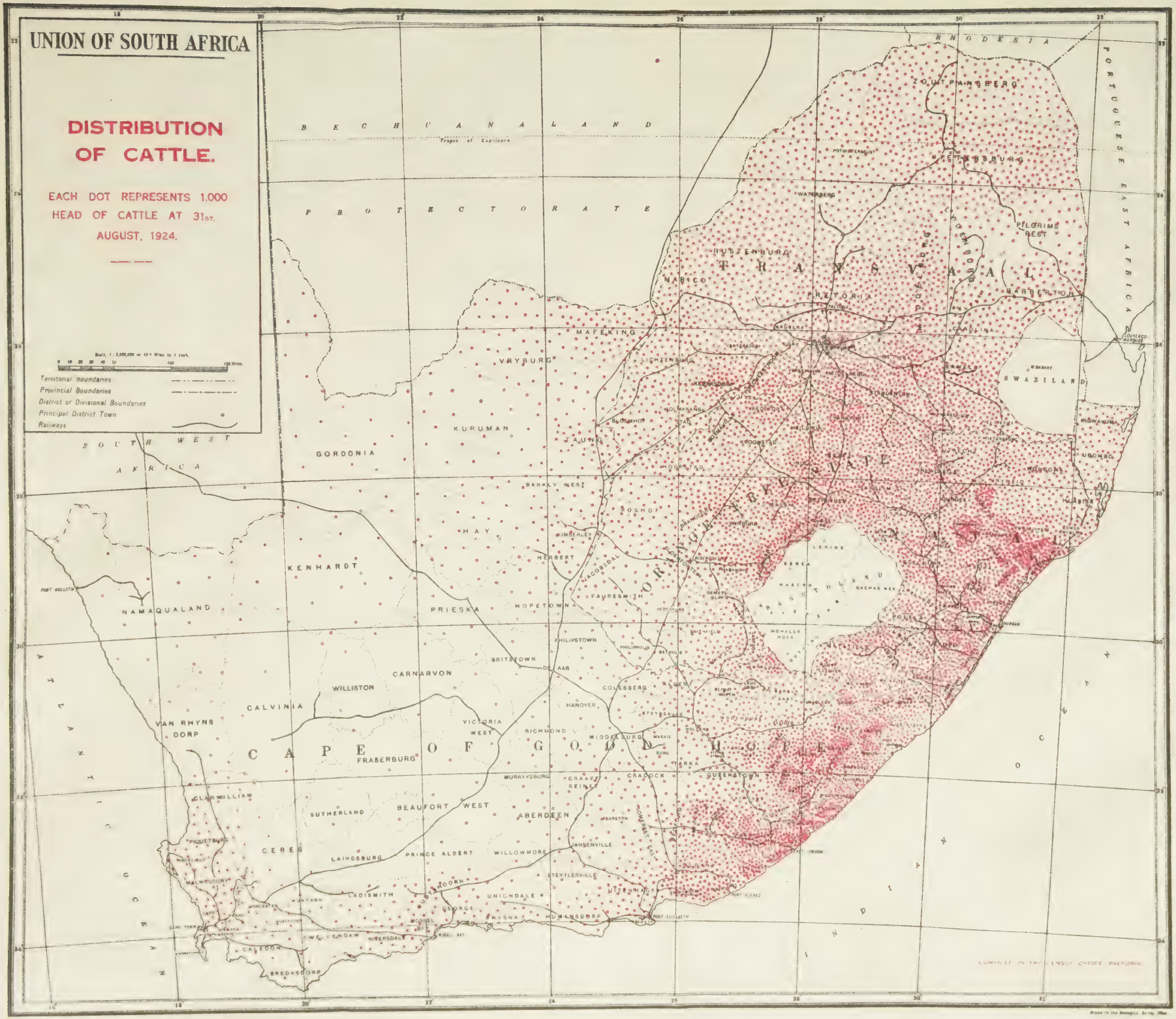
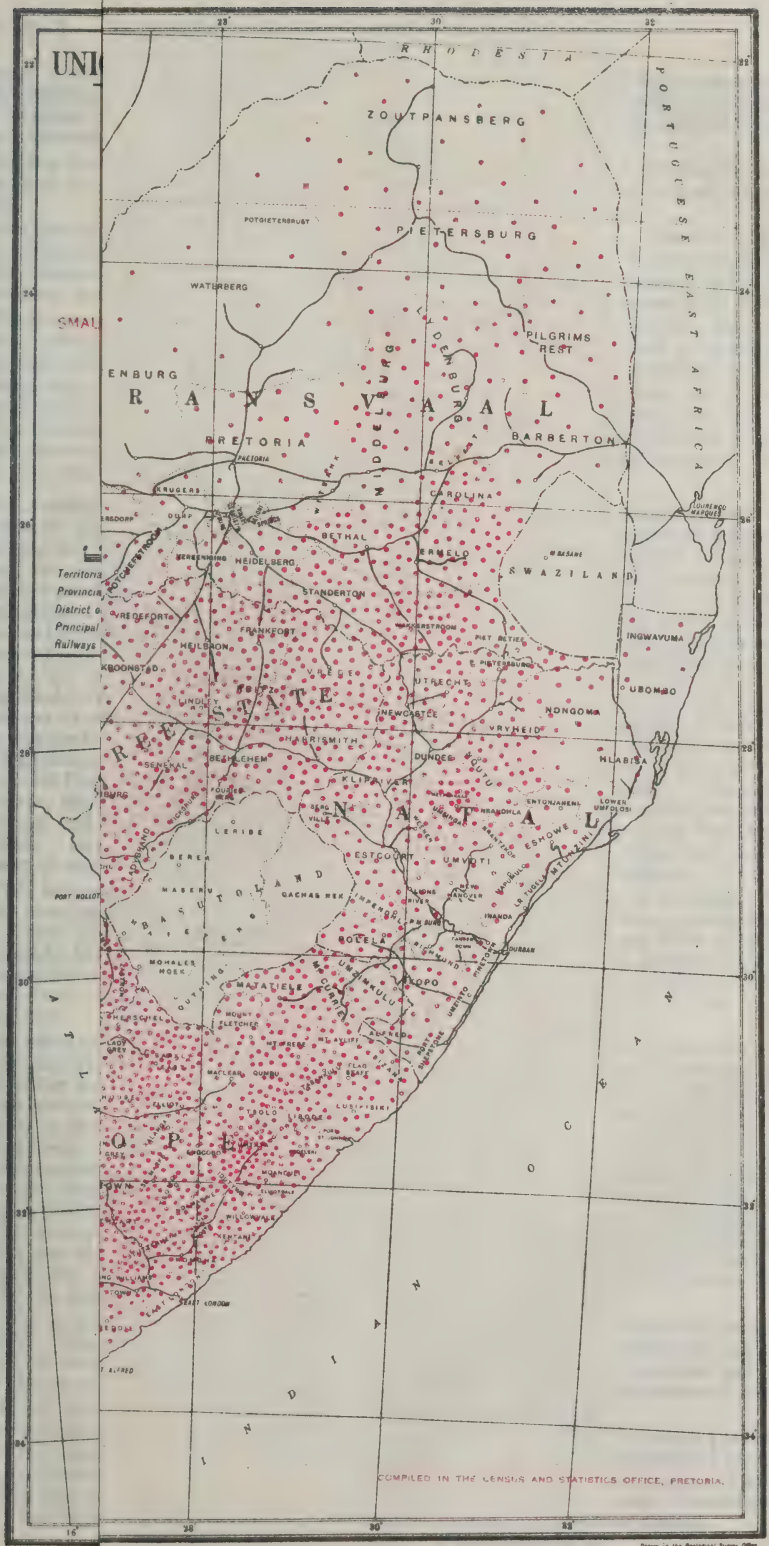

UNION OF SOUTH AFRICA
DISTRIBUTION OF CATTLE.
EACH DOT REPRESENTS 1,000 HEAD OF CATTLE AT 31ST. AUGUST, 1924.
Territorial Boundaries
Provincial Boundaries
District or Divisional Boundaries
Principal District Town
Railways
BECHUANALAND
PROTECTORATE
SOUTH WEST AFRICA
RHODESIA
PORTUGUESE EAST AFRICA
SWAZILAND
TRANSVAAL
ORANGE FREE STATE
NATAL
CAPE OF GOOD HOPE
ATLANTIC OCEAN
INDIAN OCEAN
ZOUT PANSBERG
PIETERSBURG
PILGRIMS REST
RUSTENBURG
PRETORIA
BARBERTON
MAFEKING
VRYBURG
KURUMAN
GORDONIA
KENHARDT
HAY
NAMAQUALAND
PRIESKA
HOPETOWN
BARKLY WEST
KIMBERLEY
HERBERT
JACOBSDAL
FAURESMITH
PHILIPSTOWN
BRITSTOWN
DE AAR
CARNARVON
WILLISTON
CALVINIA
VAN RHYNS DORP
VICTORIA WEST
RICHMOND
MIDDELBURG
COLESBERG
HANOVER
FRASERBURG
MURRAYSBURG
GRAAFF REINET
CRADOCK
QUEENSTOWN
ALIWAL NORTH
BETHULIE
PHILIPPOLIS
SMITHFIELD
WEPENER
LADYBRAND
FICKSBURG
BETHLEHEM
HARRISMITH
LINDLEY
HEILBRON
VREDEFORT
VEREENIGING
VANDERBIJL PARK
VILLIERS
KROONSTAD
LICHTENBURG
VENTERSDORP
POTCHEFSTROOM
WOLMARANS STAD
BLOEMHOF
JAUNG
KLERKSDORP
WELKOM
VIRGINIA
HENNEMAN
BOTHAVILLE
WINBURG
HEILBRON
LEESLIE
BENCA
MASERU
MOHALES HOEK
QACHAS NEK
LADYBRAND
ZASTRON
ROUXVILLE
WEPENER
ALIWAL NORTH
DEWETSDORP
THABANCHU
BLOEMFONTEIN
BRANDFORT
WINBURG
HOOPSTAD
VILLIERS
VEREENIGING
VANDERBIJL PARK
KLIPRIVIER
HEIDELBERG
VREDEFORT



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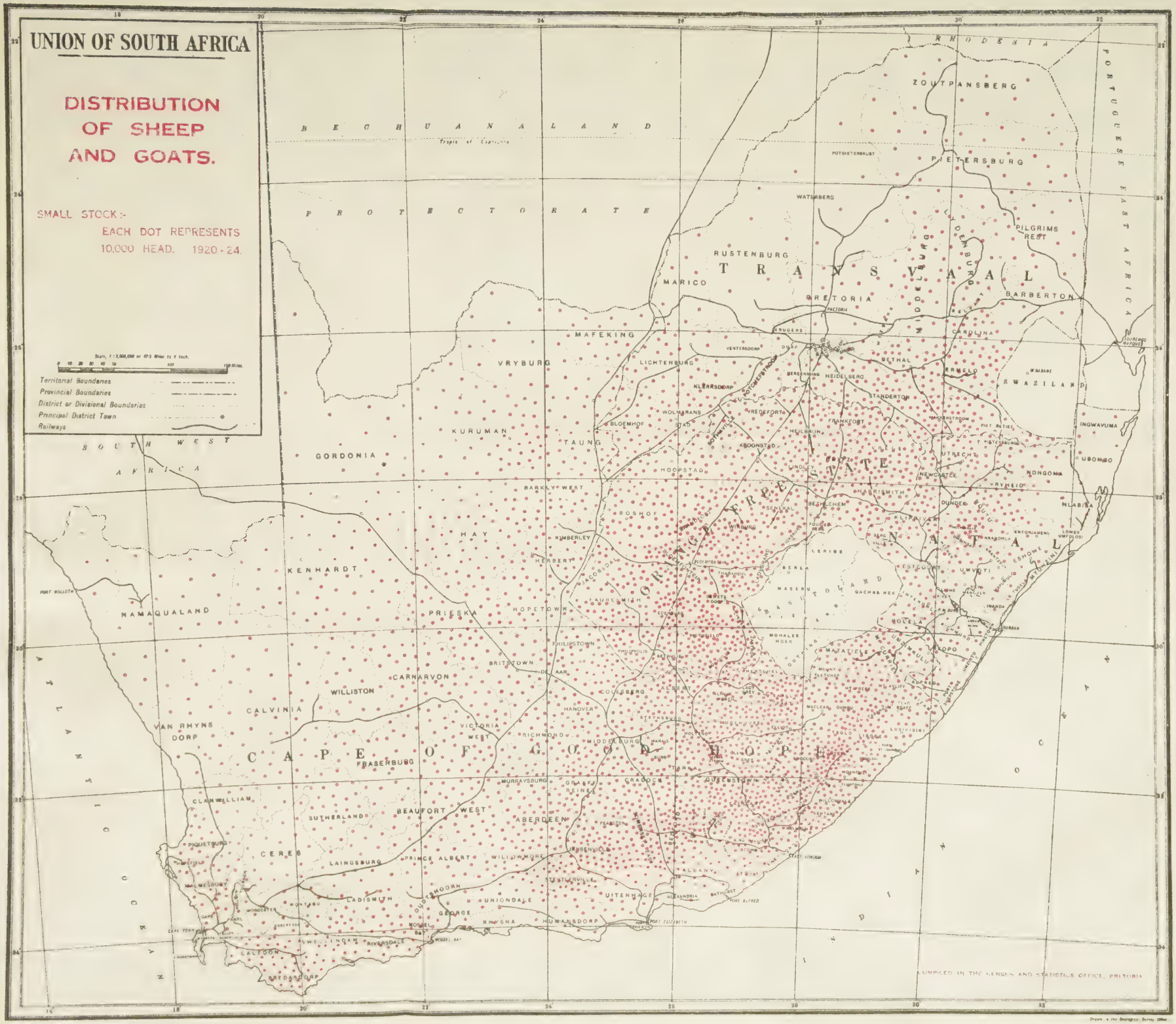

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Note: Lithographed at the Government Printing Works, Pretoria

the year. Dairying is no longer looked upon as a side line by farmers; large numbers are now specializing in dairy farming and improving their cattle, with a view solely to increasing their output of milk and cream, while the arable portions of their farms are devoted entirely to the production of foodstuffs for dairy cattle.

It may be said with confidence that great expansion of the dairy industry in South Africa is to be expected. If the present rate of progress is maintained, a great future is assured.

The principal crops grown for the feeding of dairy cattle are maize, lucerne, oats, teff grass, millet, mangolds, rye, and cow-peas, all of which do well in most of the areas devoted to dairy farming. Considerable quantities of maize are grown for silage and maize hay, and the use and value of all the above-mentioned fodders are being increasingly realized.

There are indications that cotton and peanuts will soon be cultivated on a large scale in South Africa, and the very useful residues from these crops, in the form of cotton-seed and peanut cake and hay, will form an important addition to the feeds available for cattle.

Most dairy breeds do well in South Africa. *Frieslands* and *Ayrshires* are probably the most popular, though *Jerseys*, *Dairy Shorthorns*, *South Devons*, and *Red Polls* are to be found in considerable numbers. The bulk of the dairy herds consists of what may be called *Utility Animals*, in which *Friesland*, *Ayrshire*, and *Shorthorn* blood predominates. There is a large number of pure-bred herds of each breed.

(ii) *Administration, Organization, and Legislation.*—Until the first creamery had been started in the year 1892, near Bedford, in the Cape of Good Hope, no organized development of dairying in South Africa had been attempted. At this stage the possibilities began to be realized, and, contingently, the necessity for educating farmers and those concerned in the science and practice of the industry. The Cape Government sent an officer of the Department of Agriculture to Australia to inquire into the latest methods of dairying in vogue there. As soon as the investigator had returned from Australia, the Cape of Good Hope Government commenced giving instruction in dairying through the medium of a travelling dairy in charge of an expert. In this way the Department's newly acquired knowledge was disseminated directly amongst the farmers. Natal was the next to follow suit, and engaged the services of an expert, whose first two years of work consisted principally in lecturing and demonstrating modern methods of dairying in that Province. The Orange Free State made a similar appointment during the Crown Colony administration, and in the year 1904 a Division of Dairying was included in the Transvaal Department of Agriculture. Meanwhile, in the Cape, the Elsenburg School of Agriculture had been giving useful practical instruction in dairying, and similar institutions opened later in Natal, the Transvaal, and the Orange Free State. Important to the development of the industry was the propaganda work of an expert in co-operation, who was engaged in 1905 by the Cape Government.

With the establishment of the Union came a new era of progress in dairying. The industry now began to be fostered on a national scale, and a Division of Dairying, incorporated in the Union Government's Department of Agriculture, consolidated and built upon the work already begun in the various Provinces. The present staff of the Division includes a superintendent of dairying, an assistant superintendent, seven inspectors, and two cheese graders, while a supervisor and seven travelling recorders are responsible for the official milk records.

The office of the Division of Dairying in Pretoria is a constant source of free information on all questions pertaining to dairying. One or more of the Division's inspectors are stationed in each of the four Provinces of the Union, and it is their duty to travel among the farmers and give advice and instruction in approved methods of production, and in all matters pertaining to dairying and dairy farming; as well as to administer the provisions of the *Dairy Industry Act* and to grade all butter and cheese for export overseas. The grading of produce carries with it a strong though indirect educational influence, as also does the work of the Milk Recorders attached to the Division, who are kept continually employed in carrying out check and butter-fat tests for the Official Milk Records Scheme. In September 1923, the work of milk recording was taken over entirely by the Division of Dairying, and provision was made for the granting of semi-official certificates to non-pedigree cattle at a specially low rate. This should prove a great stimulus to the breeding of better milk cattle in the country.

At the present time there are two main legal measures under which the dairy industry is directed. The first is the *Dairy Industry Act* (No. 16, 1918), which controls the internal economy of the industry. It provides "for the registration of dairy premises and the owners and occupiers thereof, for the marking of dairy produce and registration of marks thereon, and generally for the regulation of the dairy industry."

The second is the *Agricultural Products Grading Act* (No. 16, 1922), in which provision is made for regulations governing the export of dairy produce. These regulations provide for the compulsory grading of butter and cheese for export. The maximum content of water allowed in export butter is 16 per cent. As preservative, up to 0·5 per cent. of boron compounds, calculated as boracic acid, is permitted, but no other extraneous matter.

The *Co-operative Societies Act* (No. 28, 1918) and earlier Acts also claim mention in connection with South African dairying, for the industry is one which has proved itself peculiarly adaptable to co-operative organization in South Africa as in all parts of the world. (See "Agricultural Co-operation," § 12 below.)

(iii) *Development of the Industry.*—(a) *Creameries and Cheese Factories.*—The establishment of creameries and cheese factories has been a notable means of developing the dairy industry. The germ of the creamery movement must be looked for in the collection of cream for manufacture into butter at a place called Daggaboer's Nek, in the Cape of Good Hope, but pride of place as the first actual creamery to be started in South Africa must be given to the Avondale Dairy, established in the year 1892 in the Bedford District of the same Province. About a year later a number of small concerns, working on similar lines, sprang up in this district and spread farther afield; but it was not until 1896 that power-plant and refrigeration were introduced, the first creameries to instal such facilities being those at Adelaide, Bedford, and Bowker's Park. The introduction of cream testing was instrumental in making this development practicable, for previously, in the absence of means for directly ascertaining the butter-fat content of cream, each farmer's supply had been separately churned by hand power. These very wide and useful reforms were initiated by the Cape Government's dairy expert on returning from his mission of inquiry in Australia.

From these small beginnings a strong and prosperous dairy industry has grown up in South Africa. In July, 1925, there were in the Union 74 creameries with 48 ancillary cream depots, 133 cheese factories (not including private cheeseries run by farmers using solely the milk of their own cows), 1 margarine factory, 20 butter substitute factories (specially registered for the renovating or reworking of butter), and 1 condensed milk factory. Several of the creameries were started with the aid of grants from public funds, and are run on co-operative lines in so far as the dividends which they are allowed to pay to shareholders are limited to 10 per cent. Any balance must be refunded to the cream suppliers in proportion to the quantity they have supplied. Government loans (now made only to bona fide co-operative societies) were secured by a general bond over the assets of the borrowing society. New cheese factories, both co-operative and proprietary, are continually being started, and the above figures are no doubt now exceeded. Both the *Cheddar* and *Gouda* types of cheese are successfully made, most of the cheeseries preferring the latter, which is the more popular variety for local consumption.

(b) *Exports and Production.*—Whereas large quantities of butter and cheese were previously imported, during the years 1916 and 1917 not only was sufficient butter made in the Union for all local requirements, but a surplus was exported oversea. During 1924, butter to the amount of 430,270 lb. was exported, as well as 210,126 lb. of cheese, and the export trade in these commodities now appears to be fairly well established. Production has risen from 11,349,293 lb. of butter and 545,290 lb. of cheese in 1910–11 to 20,689,000 lb. and 5,900,000 lb. respectively in 1924. Regulations governing the export of butter and cheese have been brought into operation, and neither of these products can leave the Union before being officially graded according to quality, or (in the case of farm butter) unless marked "Ungraded farm butter" or "Cooking butter" (butter below third grade).

(c) *Local Grading.*—Arrangements have been made for the grading of *Cheddar* cheese for local consumption, for any cheese factory in the Union, at the nominal figure of ⅛d. per lb. and it was with a view to making grading general that a Cheese Federation was formed in East Griqualand. The two cheese graders above mentioned were appointed to undertake this work of grading.

(d) *Dairy Cattle.*—In the year 1911 there were shown to be 1,900,230 cows in the Union, At the next census (in 1918) the number was 1,924,925, exclusive of cattle in native locations, reserves, etc. The last returns taken on the 30th April, 1921, showed a total of 2,263,778 cows and heifers of two years old and over, exclusive of cattle in native locations, reserves, etc. Generally speaking, the unimproved cows of the Union produce a rather small quantity of milk, which is nevertheless of good quality. No statistics of milk production are available, but it may be said that within recent years great improvement has been brought about both as regards quantity and quality. Many more herds of first-rate milking capacity have lately been built up, while large numbers of pure-bred cattle have been and are still being imported; their progeny is spreading, and is having a marked influence for good upon the ordinary cattle of the country. This is undoubtedly largely responsible for the increased output of dairy produce.

(e) *Milk Records.*—A scheme for the keeping of official records has recently been devised by the Dairy Division of the Department of Agriculture, in conjunction with the Breed Societies. The owners of the cows entered have to weigh the milk at each milking, while an official recorder makes a check test of weights and also a butter-fat test during each month for two consecutive days in the case of pedigree cattle, and on one day in the case of non-pedigree cattle. The responsibility for the scheme, which was at first only shared

by the Department of Agriculture, was entirely taken over by the Division of Dairying in September, 1923. Official certificates are issued by the Superintendent of Dairying at the end of the lactation period of pedigree cows, and semi-official certificates are granted to non-pedigree animals, while there is an Advanced Registry for cows which attain a certain standard, and the records of pedigree cattle may be entered in the Stud Book. Under the previous arrangement the entire cost of recording was borne by the owners of the cows entered in a pro rata share per cow, but now fixed fees are charged by the Department, which are calculated to cover all the expenses entailed when the project is in full working order. The keeping of milk records is greatly on the increase. Many breeders and dairy farmers, having realized its vast importance, are coming under the scheme. One feature which is calculated to give a considerable impetus to this important phase of dairying is the fact that it has been possible to export to Great Britain a number of pure-bred Friesland animals taken from herds all over the Union; animals whose dams have qualified on the standard laid down by the British officials, viz., 12,000 lb. of milk, containing a minimum of 3·3 per cent. butter-fat. These animals were sold by auction in England in June, 1922, and realized very satisfactory prices.

(iv) *Statistics.*—The following tables will serve to illustrate the position of the industry and the advance which has taken place since 1910–11 :—

(i) BUTTER—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1923–24.

Year.	Production.			Imports (less Re-Exports).	Exports (South African Produce).	Production (less Exports).	Available for Consumption.
	Creamery Butter.	Farm Butter.	Total.				
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11...	5,191	6,159	11,350	3,510	248	11,102	14,612
1911–12...	6,254	4,314	10,568	4,177	319	10,249	14,426
1912–13...	7,660	3,082	10,742	4,160	358	10,384	14,544
1913–14...	6,567	4,155	10,722	3,719	318	10,404	14,123
1914–15...	8,323	5,084	13,407	2,784	230	13,177	15,961
1915–16...	7,877	5,105	12,982	947	959	12,023	12,970
1916–17...	11,397	5,713	17,110	93	2,475	14,635	14,728
1917–18...	12,014	8,079	20,093	69	2,508	17,585	17,654
1918–19...	13,733	7,960	21,693	157	1,176	20,517	20,674
1919–20...	10,864	6,945	17,809	279	557	17,252	17,531
1920–21...	11,517	7,446	18,963	353	1,663	17,300	17,653
1921–22...	12,508	9,365	21,873	529	2,210	19,663	20,192
1922–23...	11,864	10,551	22,415	447	779	21,636	22,083
1923–24...	11,104	9,585	20,689	3,381	244	20,445	23,826

(ii) CHEESE—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1923–24.

Year.	Production.			Imports (less Re-Exports).	Exports (South African Produce).	Production (less Exports).	Available for Consumption.
	Factory Cheese.	Farm Cheese.	Total.				
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11...	225	320	545	4,660	21	524	5,184
1911–12...	373	402	775	4,907	23	752	5,659
1912–13...	521	504	1,025	5,209	25	1,000	6,209
1913–14...	606	633	1,239	5,245	21	1,218	6,463
1914–15...	1,099	794	1,893	4,601	16	1,877	6,478
1915–16...	978	997	1,975	3,050	55	1,920	4,970
1916–17...	2,359	1,907	4,266	1,207	125	4,141	5,348
1917–18...	4,277	1,746	6,023	302	381	5,642	5,944
1918–19...	5,153	366	5,519	94	1,137	4,382	4,476
1919–20...	3,782	272	4,054	796	931	3,123	3,919
1920–21...	4,347	272	4,619	170	555	4,064	4,234
1921–22...	5,136	204	5,340	95	522	4,818	4,913
1922–23...	5,111	548	5,659	265	280	5,379	5,644
1923–24...	5,455	445	5,900	1,071	176	5,724	6,795

5. **Sheep and Wool.**—(i) *History of Sheep-Breeding.*—Of the agricultural and pastoral industries of the Union the breeding of woolled sheep is the oldest and most important. The original Cape sheep, still bred to a large extent in South Africa, is a light, somewhat leggy animal covered with hair of varying hue, and with long, lopping ears. Another characteristic is a broad tail, composed principally of fat, and varying in weight from six to over ten pounds. In order to improve the native sheep, importations of rams and ewes from the best flocks in Holland were made by the Dutch East India Company in 1654, and numerous introductions of high-class stock from oversea subsequently took place. The next importation was in 1689, also by the Company, but this time from Spain. In 1790, Colonel Gordon, an officer in the Company's service, introduced a number of fine merino sheep of the *Escurial* breed. Other importations occurred at about this period, and later the breeding of woolled sheep was undertaken seriously. Introductions of sheep of *English* breeds were effected by the settlers of 1820, and purchases were afterwards made in Saxony and, still later, in France. Of late years there have been fairly large importations, chiefly from Australia. The present wool industry of the Union has been built up by the careful selection of rams and the breeding of pure merinos.

(ii) *Number of Sheep in the Union.*—The following tables show the number of sheep (woolled and others) in the country in the census years 1904 and 1911 and in succeeding years. In the years 1919, 1920, and 1922, when the annual census did not cover either the native areas or the towns, and in 1923 and 1924, when the censuses did not embrace the towns, the numbers as ascertained in 1918 and 1921 have been assumed and included for convenience of comparison.

SHEEP IN THE UNION, 1904 TO 1924.

(*a*) WOOLLED SHEEP.*

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904	8,465,308	504,798	413,638	2,436,891	11,820,635
1911	11,051,836	1,105,023	2,330,304	7,355,052	21,842,215
†1912	13,239,067	1,583,659	3,098,785	9,409,656	27,331,167
†1913	13,396,765	1,666,019	3,797,395	9,467,728	28,327,907
†1915	12,372,344	1,938,113	3,467,206	8,166,143	25,943,806
†1916	12,712,107	1,927,746	3,615,821	8,234,850	26,490,524
1918	13,301,626	1,279,833	2,868,425	7,608,834	25,058,718
1919	13,674,092	1,234,350	2,920,948	8,179,177	26,008,567
1920	12,707,492	1,246,810	3,006,768	7,802,657	24,763,727
1921	14,191,253	1,383,607	3,369,105	8,813,248	27,757,213
1922	13,784,728	1,175,908	2,916,042	8,214,642	26,091,320
1923	14,083,571	1,286,579	2,852,361	7,601,428	25,823,939
1924	14,710,052	1,421,729	2,994,630	7,958,080	27,084,491

(*b*) OTHER SHEEP.

1904	3,353,521	163,580	422,111	562,656	4,501,868
1911	6,082,677	414,235	1,084,946	1,232,586	8,814,444
†1912	6,022,147	295,090	1,206,251	1,034,266	8,557,754
†1913	5,188,939	357,866	1,220,563	712,725	7,480,093
†1915	3,886,782	406,034	811,786	385,672	5,490,274
†1916	3,847,311	372,547	877,596	392,727	5,490,181
1918	3,572,316	320,545	614,404	348,052	4,855,317
1919	4,217,267	329,163	662,607	521,830	5,730,867
1920	3,309,947	335,393	674,867	452,960	4,773,167
1921	3,109,489	221,449	408,010	233,351	3,972,299
1922	4,136,119	263,007	646,753	558,841	5,604,720
1923	4,082,646	318,112	649,047	544,722	5,594,527
1924	3,652,068	351,133	630,827	479,049	5,113,077

* In the classification of sheep there are marked differences in each census. This is due to the farmer confusing his woolled with his non-woolled sheep.

† Figures supplied by the Department of Agriculture.

(iii) *Sheep Flocks in Various Countries.*—The following table gives figures, extracted from a number of sources, showing the size of the sheep flocks of various countries at the most recent dates available in each case :—

SHEEP FLOCKS OF VARIOUS COUNTRIES.

Country.	Year.	Number of Sheep (Thousands).	Country.	Year.	Number of Sheep (Thousands).
Australia	1923	80,110	Greece	1921	5,789
Russia in Europe	1924	54,675	Germany	1924	5,717
United States	1924	38,300	Algeria	1924	4,605
Argentine	1922	36,209	Chili	1922	4,569
British India	1923	33,537	Portugal	1920	3,851
Union of South Africa	1924	32,198	Irish Free State	1924	3,128
Turkey in Europe and in Asia	1912	27,095	Canada	1924	2,685
New Zealand	1924	23,776	Kenya	1924	2,568
United Kingdom	1924	22,239	Basutoland	1924	2,002
Spain	1924	18,460	Hungary	1924	1,814
Uruguay	1924	14,514	Mexico	1924	1,728
Roumania	1924	13,612	Anglo-Egyptian Sudan	1924	1,638
Italy	1920–21	12,499	Sweden	1920	1,568
Russia in Asia	1924	12,408	Syria	1924	1,507
France	1924	10,172	Norway	1924	1,507
Bulgaria	1920	8,923	Tunis	1924	1,379
Morocco (French)	1924	8,215	Egypt	1924	1,085
Brazil	1920	7,933	South-West Africa Protectorate	1924	1,009
Jugo-Slavia	1924	7,639			

(iv) *Wool Production.*—Almost the whole of the Union wool clip is shipped oversea, and the export returns therefore reflect practically the total production of the country. Details will be found in Chapter XVIII.

The following tables give (i) the production of wool in the Union as returned at the agricultural censuses for a series of census years, and (ii) world production for 1909–13, 1923, and 1924 :—

(i) PRODUCTION OF WOOL—AGRICULTURAL CENSUSES, 1917–18 TO 1923–24.

Year.	Cape.	Natal.	Transvaal.	Orange Free State.	Total.
	lb.	lb.	lb.	lb.	lb.
1917–18	64,473,000	5,758,000	13,396,700	40,708,500	124,336,200
1919–20*	66,924,450	5,798,830	14,484,950	44,827,650	132,035,880
1920–21	66,833,137	5,909,932	15,812,392	47,373,558	135,929,019
1921–22	71,349,877	5,660,092	15,147,762	47,895,218	140,052,949
1922–23	72,045,812	5,555,523	15,271,370	44,344,880	137,217,585
1923–24	77,674,058	6,204,061	15,910,541	48,076,833	147,865,493

* Not enumerated for 1918–19.

Note.—The discrepancy between the production and export figures (Chapter XVIII), plus the local consumption, is a phenomenon common also to Australia and America. The difference is apparently accounted for by wool pulled from slaughtered sheep and sheep which have died from disease, as also by wool shorn by speculators, figures in respect of which are not reflected in the production returns.

(ii) ESTIMATED WORLD PRODUCTION OF WOOL, 1909–13, 1923, AND 1924.

Country.	Average, 1909–13.	1923.	1924.
	1,000 lb.	1,000 lb.	1,000 lb.
Australia	705,146	560,581	650,000
Argentine	358,688	290,000	280,000
United States	314,110	266,830	282,330
British South Africa	165,888	180,000	193,000
New Zealand	198,474	208,979	188,000
Russia (Europe)	320,000	150,000	150,000
United Kingdom	134,000	102,300	106,300
Uruguay	156,968	96,300	95,000
Spain	72,000	88,000	94,798
British India	60,000	65,000	60,000
China	50,000	65,000	75,000
Turkey-in-Asia	90,000	60,000	60,000
Italy	55,000	55,000	57,000
Germany	52,000	53,600	53,600
Roumania	13,228	52,800	52,910
Russia-in-Asia	60,000	45,000	45,000
Chile	17,430	32,000	34,000
France	80,688	42,361	42,361
Algeria	35,221	36,000	36,000
Jugoslavia	25,446	35,453	35,373
Bulgaria	23,700	23,760	24,250
Morocco	14,850	19,500	19,500
Greece	14,000	16,414	19,810
Brazil	35,000	19,000	19,000
Persia	12,146	18,000	19,000
Canada	11,210	15,394	15,112
Peru	9,940	13,000	15,484
Hungary	17,637	11,020	13,200
Other countries	128,707	98,161	100,611
WORLD PRODUCTION	3,231,477	2,719,453	2,836,539

(v) *The South African Wool Market.*—In former days it was customary for South African sheep farmers to sell their wool or barter it to up-country storekeepers, merchants, or speculators, many of whom were supported by large mercantile or broking houses at the coast. These buyers then forwarded the wool to the coastal towns for disposal. The up-country purchasers cannot, in the majority of cases, be regarded as wool buyers in the strict sense of the word, as they lack the requisite knowledge and experience to estimate the quality and clean scoured yield of the wool. The wool is, therefore, bought by them simply at so much per lb. in the grease, the price paid being frequently not the true value of the wool. The majority of the sheep farmers, having realized this fact, now forward their wool direct to wool brokers at the coast, who sell the wool on a commission basis, but there is still much room for improvement as a large number of farmers, mostly small holders, still persist in the bartering system.

The systems of selling wool in vogue at the different ports are not uniform. In Durban all wool must in the first instance be offered for sale on public catalogue sales. If the reserve price is not reached and the wool is declared unsold, the highest bidder has the option until the following day of taking over the wool if desired, but should he not avail himself of this option, the wool may be sold by private treaty between the broker and the buyers. In Port Elizabeth, wool is sold either by private treaty or on public catalogue sales, but there is no compulsion as in Durban first to offer it at the public sales. In East London and Cape Town, wool is at present sold only by private treaty between the brokers and the buyers. Previous to the European War public sales were held in East London, and have since been resumed.

In certain up-country towns in the Western Province of the Cape, viz., Swellendam Heidelberg, Riversdale, Caledon, and also the coast town of Mossel Bay, one public sale per annum is held, comprising the various clips grown in those districts. The custom of holding these annual sales has been in vogue for many years. Periodical public wool sales have been started lately in Bloemfontein and other places in the Orange Free State.

In the year 1917, the Imperial Government made an offer to purchase the whole of the South African wool clip of the season 1917–18 on a schedule of prices based as nearly as possible on 55 per cent. above the ruling prices in 1913–14. The Imperial Government further proposed that if wool prices fell, they would bear the whole financial loss, but if a profit was made, it would be shared equally between the Imperial and Union Governments.

The offer was considered a most favourable one and was accepted on the condition that those growers who wished to participate in the scheme should register their clips. The effect of this offer was a rapid rise in the wool market as far as extra super wools were concerned, and it is necessary to review, briefly, the state of the market at that time. The early months of 1917 witnessed a falling market owing to a serious scarcity of freight. About February, most of the firms operating for the United Kingdom gradually stopped buying owing to shipping difficulties, and consequently prices began to fall rapidly. Large stocks accumulated at the ports for which there was little or no demand, and the market was saved by the fact becoming known that the British Government was negotiating for the purchase of the whole South African clip of the 1917–18 season.

The participation of the United States in the European War necessitated increased purchases of wool for their requirements, so that they became active operators in the South African market.

The Japanese, who up to 1916 had purchased only 245 bales in South Africa, on finding the whole of the Australian clip sold to the Imperial Government, began to send in extensive orders, buying largely for future deliveries and thereby creating a boom in the market as far as extra super wools were concerned. In view of this improvement in the market many farmers who had registered their clips withdrew from the scheme and sold their wool in the open market. The Imperial Government renewed their offer in regard to the 1918–19 season's clip, but so little support was forthcoming that the offer was withdrawn.

After the boom referred to above a great depression in the wool trade set in and there is no doubt that if the South African farmers had accepted the Imperial Government's offer for a period of five years as was done in Australia, they would have benefited thereby and their acceptance would have created a greater stability in the wool market.

There has been a great deal of fluctuation in the wool market from time to time. The average price paid for grease wool gradually rose from 6·01d. per lb. in 1908 to 29·30d. in 1920. A set-back has taken place since. The average price paid in 1921 was 7·90d. per lb., while in 1922 it rose to 11·93d., 1923 to 17·20d., and 1924 to 20·40d. With the development of a tendency towards a world shortage in the supplies of wool, the price moved still further upwards in subsequent years.

During the great wool boom at the end of 1919 and early parts of 1920, as much at 85d. per lb. was paid for grease wool, but shortly afterwards a slump set in. Towards the end of 1920 the market became dead, and farmers were unable to dispose of their wool. With a view to assisting the farming community, the Government endeavoured to find a market in Germany, but the negotiations failed. Subsequently, the Imperial Government was induced to buy up to 100,000 bales of the unsold portion of 1919–20 clip at the 1913–14 season's prices. These prices were considered very good and were considerably above the nominal market prices for the lower types of wool. The Government Wool Scheme was commenced in April, 1921, and since then gradual improvement in the market has taken place and towards the end of the 1921–22 season all old stocks of wool had been sold and shipped. Half the realized profits, amounting to £99,855, were paid over by the Imperial Government to the Union Government for distribution among those who had participated in the scheme. After allowing for £19,773 paid out in expenses, a sum of £80,082 was distributed.

A great improvement in the quality of the South African wool has been brought about during recent years through judicious classing and mating of sheep, and much good work has been done by the sheep and wool experts of the Agricultural Department in advising farmers in this direction. An improvement has also taken place in the classing and get-up of the clips so as to make these more attractive to buyers when the wool is displayed for sale. For the purpose of improving the quality of the wool and disposing of it to the best advantage, many Wool Growers' Associations have recently been established. The work of these associations will no doubt benefit the farmers in general, and do much towards gaining the confidence of the buyers as to the quality of the wool packed when it is offered for sale.

(vi) *Export of Sheep Skins.*—A considerable trade in sheep skins also is carried on. Details will be found in Chapter XVIII.

(vii) *Mutton.*—It was formerly necessary to import large quantities of mutton for consumption within the Union, but the importations during the period of the war dwindled to negligible dimensions; and though the imports in 1920 almost reached the pre-War level, the upward movement was subsequently not maintained.

6. **Goats and Mohair.**—(i) *Number and Classification of Goats.*—The tables hereunder give information as to the number of goats in the Union, distinguishing Angora goats from others. Owing to the fact that at the agricultural censuses of 1919, 1920, and 1922, goats in native areas and towns, and at the 1923 and 1924 censuses in towns, were not enumerated, it has been necessary to assume in respect of these years a number calculated from the nearest census, and to include this number in the tables for convenience of comparison.

GOATS IN THE UNION, 1904 TO 1924.

(*a*) ANGORA GOATS.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904.....	2,775,927	128,752	85,868	402,192	3,392,739
1911.....	3,340,132	127,452	262,174	545,577	4,275,335
1912.....	3,668,581	77,673	189,747	459,100	4,395,101
1913.....	3,546,218	80,517	225,458	341,691	4,193,884
1915.....	2,396,834	79,105	122,400	246,166	2,844,505
1916.....	2,190,575	73,634	110,805	189,275	2,564,289
1918.....	2,391,963	66,029	109,061	164,125	2,731,178
1919.....	2,548,157	57,634	98,275	169,566	2,873,332
1920.....	1,965,837	57,694	78,155	137,966	2,239,652
1921.....	2,042,689	43,749	60,628	137,505	2,284,571
1922.....	2,054,500	35,817	54,648	127,358	2,272,323
1923.....	2,119,478	34,253	41,763	89,080	2,284,574
1924.....	1,989,828	38,033	30,769	81,408	2,140,038

(*b*) GOATS OTHER THAN ANGORA.

1904.....	4,386,536	871,180	788,113	331,977	6,377,806
1911.....	4,613,282	861,822	1,509,546	502,994	7,487,644
1912.....	4,473,200	812,079	1,665,628	345,154	7,296,061
1913.....	4,196,694	986,675	1,752,351	275,422	7,211,142
1915.....	3,567,234	1,109,377	1,233,338	163,818	6,073,767
1916.....	3,618,148	1,171,191	1,462,156	145,912	6,397,407
1918.....	3,503,939	817,083	875,820	90,851	5,287,693
1919.....	3,821,775	912,154	952,256	118,864	5,805,049
1920.....	3,471,015	909,024	1,013,196	98,604	5,491,839
1921.....	3,711,233	894,898	845,600	100,394	5,552,125
1922.....	4,088,187	987,618	880,358	108,158	6,064,321
1923.....	4,101,459	1,005,179	834,952	98,011	6,039,601
1924.....	4,029,040	1,039,780	839,850	95,067	6,003,737

(ii) *The Angora Goat.*—In 1838 Colonel Henderson imported twelve rams and one ewe. The rams were said to have been rendered impotent before they left Angora, and only one male born en route proved perfect. This can be said to have been the first importation. The second importation was made by Messrs. Mosenthal in 1856. Further importations were made by others in 1857, 1860, 1868, 1870, 1871, 1880, and 1897. So much intelligent care was bestowed on and so much industry applied to the breeding of Angoras that in 1891 there were approximately 3,000,000 in the country, and some of the specimens were regarded as superior to any goats produced in Turkey.

The severe drought which visited the country during the few years prior to 1916, especially in the districts devoted largely to the raising of Angoras, is mainly responsible for the falling off in the number of Angora goats raised since 1911.

(iii) *Production of Mohair.*—As in the case of wool, practically all mohair is shipped oversea, and the export returns may be taken substantially as indicating the production of this article in the Union. Details will be found in Chapter XVIII.

The following table shows the production of mohair in the Union, as returned at the agricultural censuses of 1917–18, 1919–20, 1920–21, 1921–22, 1922–23, and 1923–24 :—

PRODUCTION OF MOHAIR—AGRICULTURAL CENSUSES, 1917–18 TO 1923–24.

Year.	Cape.	Natal.	Transvaal.	Orange Free State.	Total.
	lb.	lb.	lb.	lb.	lb.
1917–18.....	9,614,100	136,900	211,500	422,600	10,385,100
*1919–20.....	7,548,410	94,650	125,400	330,700	8,099,160
1920–21.....	7,905,206	93,004	117,556	332,784	8,448,550
1921–22.....	8,135,740	72,154	88,746	326,454	8,623,094
1922–23.....	9,073,154	63,425	66,099	251,871	9,454,549
1923–24.....	7,762,064	60,927	50,372	225,731	8,099,094

* Not enumerated for 1918–19.

(iv) *Trade in Mohair.*—To a certain extent the supply of mohair exceeds the demand, and the sale is confined almost entirely to the Bradford market, where it is spun into yarn and distributed. Until Turkey entered the European War, that country was the greatest

competitor with the Union in the supply of mohair. In 1865, when the mohair exported from South Africa amounted to 9,609 lb., the amount exported to the United Kingdom from Turkey totalled 2,421,188 lb.

By the year 1887 a greater quantity of mohair was being exported to the United Kingdom from South Africa than from Turkey—8,756,116 lb. as against 6,714,816 lb.—and since that year the Turkish export has only twice exceeded that of South Africa—in 1895 and in 1898. Since 1907 the annual South African output to the United Kingdom has been nearly double that of Turkey, and the lead has been maintained notwithstanding that average Turkish mohair commanded some 2d. to 3d. per lb. more than that from South Africa. The exceptional advance made in regard to other pastoral industries in the last decade did not, however, occur in the case of mohair; for, as already stated, mohair is an article for which there is a limited demand, and the stimulus to the production of such commodities as wool, dairy produce, and ostrich feathers which came with the conclusion of the Anglo-Boer War slackened in respect of mohair as soon as the country had reached the limit of successful competition with Turkey for the world's consumption of about 30,000,000 lb. per annum, of which South Africa produces more than half.

(v) *The South African Goat.*—The common goat was found to be in the possession of the natives of the Cape of Good Hope when the country was first occupied by Europeans. This animal was, however, very inferior to the common goat of the country as it exists at the present day. Improvement in size and appearance has been effected by breeding. At present South African goats are bred principally in the dry Karroo districts to the north and north-west of the Cape Province, in the various native areas, and in the bush country where sheep do not thrive. These goats are hardy animals, grow to a considerable size, and multiply rapidly; hence they are the most profitable stock which can be raised in districts where there is a demand for their mutton.

(vi) *Trade in Goat Skins.*—Practically all the goat skins available for sale are exported oversea. Details will be found in Chapter XVIII.

7. **Pig and Bacon Industry.**—(i) *Development and Potentialities.*—In so far as the development of the pig industry in South Africa is concerned, progress has been somewhat slow. During recent years there has actually been a decrease in respect of numbers, but an appreciable improvement in quality and type. The commercial side of pig farming is undoubtedly receiving far more serious consideration, though progress in this respect must of necessity be gradual owing to the vastness of the country; also to the lack of transport, and other facilities. There is no doubt that the development is as yet far from being commensurate with the immense potentialities of the industry. The natural resources of the country, such as its equable climate, freedom from the more serious swine diseases, cheap labour, and the production of large quantities of maize, lucerne, and milk by-products, all warrant pig farming being undertaken, on a small scale at least, in various parts of the Union on a profitable basis.

(ii) *Number of Pigs.*—Particulars are given hereunder as to the number of pigs in the Union. Owing to the fact that the agricultural censuses of 1919, 1920, and 1922 did not include either the native areas or towns, also that the censuses for 1923 and 1924 did not include towns, the number of pigs in these areas has been estimated for the years in question from figures of the nearest census and have been included in the following table for convenience and comparison:—

NUMBER OF PIGS IN EACH PROVINCE, 1904 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
1904.....	385,945	75,887	155,843	61,409	679,084
1911.....	505,730	110,332	302,882	162,656	1,081,600
1918.....	537,896	119,153	240,750	145,425	1,043,224
1919.....	582,537	127,882	275,949	173,468	1,159,836
1920.....	491,613	129,751	267,119	107,501	995,984
1921.....	448,166	120,989	249,063	96,551	914,769
1922.....	475,584	124,538	238,435	102,387	940,944
1923.....	405,673	130,449	256,324	121,555	914,001
1924.....	378,918	109,733	234,205	101,613	824,469

(iii) *Present Position of the Industry.*—It is due largely to a number of carefully selected importations, also to a certain amount of systematic breeding and feeding, and improvement in management generally, that the standard of bacon pig produced in the various Provinces of the Union has been appreciably raised during recent years. The facilities provided under the present Ocean Mail Contract for the free conveyance of pedigree stock have been the

means of increasing the importations of pigs into the Union, but it is regretted that ful advantage has not been taken of these facilities during the past few years. It is true that in most cases the type of animal imported for breeding purposes has been well suited to the conditions of the country, but unfortunately quite a number of these animals have been excessively fat and therefore their condition has been prejudicial to their usefulness as breeding stock. It is an interesting fact that there has also been considerable improvement in the equipment of the bacon factories that are established to-day in the different parts of the country. This should prove an incentive to stimulate increased production. Despite these improvements it is generally recognized that the improvement in the type of bacon pig marketed has not kept pace with the facilities available for the production of a considerable amount of prime quality bacon.

The following tables give particulars as to the Union's production, imports, and exports of bacon, ham, and lard:—

(*a*) BACON, HAM, AND LARD—PRODUCTION, 1915–16 TO 1923–24.

YEAR.	FACTORY PRODUCTION.					BACON AND HAM PRODUCED ON FARMS.	TOTAL PRODUCTION OF BACON AND HAM.
	Value of Pigs Used.	Quantity Produced.		Value.			
		Bacon and Ham.	Lard.	Bacon and Ham.	Lard.		
	£	lb.	lb.	£	£	lb.	lb.
1915–16...	76,332	2,021,475	190,849	107,524	8,461	*	*
1916–17...	137,383	2,803,190	218,356	176,349	11,351	*	*
1917–18...	234,757	4,772,461	445,616	291,614	24,412	2,313,000	7,085,461
1918–19...	330,688	6,535,215	616,429	414,347	32,799	1,887,040	8,422,255
1919–20...	486,456	6,821,415	732,178	580,379	51,881	1,610,120	8,431,535
1920–21...	449,564	5,555,317	495,574	490,470	31,248	2,244,600	7,799,917
1921–22...	320,079	5,691,144	621,219	377,446	22,816	1,435,790	7,126,934
1922–23...	288,759	5,700,850	619,449	342,607	25,277	2,143,800	7,844,650
1923–24...	298,202	5,907,631	801,094	340,272	34,716	1,982,347	7,889,978

* Not available.

(*b*) BACON, HAM, AND LARD—IMPORTS AND EXPORTS, 1910 TO 1924.

YEAR.	IMPORTS LESS RE-EXPORTS.				EXPORTS (S.A. PRODUCE).			
	Bacon and Ham.		Lard.		Bacon and Ham.		Lard.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£	lb.	£
1910...	5,205,874	220,042	1,072,776	30,105	9,962	416	363	12
1911...	5,706,453	214,509	1,962,414	43,631	16,702	763	100	4
1912...	5,630,311	210,202	1,350,791	32,361	17,348	739	153	4
1913...	5,873,885	250,957	1,777,293	44,459	13,837	669	90	3
1914...	5,174,847	214,359	1,174,159	30,592	20,561	978	115	4
1915...	4,085,631	190,805	1,636,841	42,642	29,595	1,628	—	—
1916...	2,689,584	146,216	1,284,317	36,362	42,012	2,406	1,241	73
1917...	300,565	18,374	382,396	17,659	96,318	7,107	24,887	1,562
1918...	64,203	3,945	*	*	281,293	22,236	45,692	2,549
1919...	20,367	1,812	19,488	1,499	1,597,298	104,759	51,700	3,469
1920...	58,557	6,102	413,339	33,392	919,509	85,465	19,673	1,906
1921...	305,026	24,963	129,291	5,608	704,122	54,786	32,971	2,433
1922...	606,022	41,196	126,766	4,382	438,860	23,399	12,391	583
1923...	850,703	48,499	449,809	15,558	244,699	15,961	17,515	918
1924...	1,219,906	66,790	623,786	22,133	127,234	7,875	10,740	412

* Imports—21,490 lb., value £1.115; Re-exports—33,531 lb., value £1,967.

Between the years 1913 to 1920 the industry continued to make fairly satisfactory progress. Since the latter date, however, there has been a very noticeable decrease in the export bacon and ham trade, due primarily to competition in the overseas markets having become normal again after the European War. During the boom period of 1919-21, a large number of bacon factories, most of them comparatively small local concerns, were established in different parts of the Union. The subsequent slump in the price of bacon on the overseas markets during the years 1922–23 compelled many of these smaller factories to close down. This enabled the larger factories, which were better able to weather the storm, to increase

their killings and so reduce their overhead charges in respect of the number of pigs handled. The bacon industry appears to-day to be once more stabilized, and it is reasonable to suppose that the bumper maize harvest that is expected this year, together with the fact that increased protection on imported bacon and ham has recently been given to the industry by the Government, will enable pig breeders in the Union to meet, at least, the necessary requirements of the South African trade and possibly even again to consider the building up of an export trade.

Of the imported breeds, *Large Blacks* are still produced in the largest numbers. In parts of the Union, particularly in Natal, *Middle Whites* have been taken up by a number of breeders and are for the most part being used for crossing with *Large Blacks* and *Tamworths* for the production of baconers. The *Berkshire* (boar)-*Large Black* (sow) cross is the most universal cross used for the production of baconers. The *Tamworth* (boar)-*Large Black* (sow) cross has been gaining ground and to a lesser extent the *Large White* boar has been used for crossing with both *Large Black* and *Tamworth* sows. The lean, sizable Wiltshire side is in most demand in so far as the South African trade is concerned. There is a ready market for heavy and extra heavy Wiltshire sides in the North of England, though an export trade in this class of bacon can only be considered provided the cost of production locally is sufficiently low to allow of its being a profitable undertaking. The production of baconers has in the hands of certain breeders and feeders attained a high standard of excellence. Pens of baconers are annually exhibited at the more important shows throughout the Union, and in point of merit these pigs compare favourably with the best baconers that are produced in any part of the world. The prizes won by South African bacon factories for bacon exhibited in competition overseas demonstrate clearly that the Union is able to produce bacon of prime quality. The general standard, however, leaves much to be desired.

The registration of all pedigree pigs is performed by the Pig Breeders' Society of South Africa. This body is a live concern and is doing everything in its power to promote the interests of the pig industry. Advice and literature are given gratis, on application to the Secretary, P.O. Box 703, Cape Town. Although pig breeders in the Union are not as yet properly organized, local societies are gradually being formed in various parts of the country.

The marketing of pigs, owing to a lack of proper organization, has not been satisfactory, despite the fact that the average prices obtained during the past year have allowed of profits being made which compare favourably with those in other lines of farming in South Africa. The bacon factories in 1924 paid an average price of 6½d. per lb. for prime baconers, while open-market prices have at times been considerably higher, 8½d. being touched on a few occasions. Porkers are in good demand, the average price obtained being in the neighbourhood of 5d. per lb. live weight for well-finished pigs of good quality.

Pure-bred weaners, representative of the recognized breeds, can ordinarily be obtained at from £3. 3s. upwards, whilst gilts and boars of breeding age, i.e. eight months and over, are obtainable at prices ranging from £8. 8s. and upwards.

8. **Ostrich Farming.**—(i) *Natural Condition of Ostriches.*—The ostrich in its natural state at one time abounded all over the habitable parts of Africa, and was regularly hunted for its plumes. Had not its domestication been undertaken it would doubtless have become extinct as a result of the increase of population and the gradual agricultural development of the country. As it is, wild ostriches are still to be found in certain parts, while the birds kept on farms have greatly increased, numbering about 776,000 in 1913, but since reduced by more than half as a consequence of the war. Ostrich farming was first seriously undertaken in South Africa about fifty years ago, and the export of plumes from domesticated birds increased rapidly, soon outweighing that of plumes from the wild birds. At the present time the feathers from the latter are a negligible quantity.

(ii) *Ostrich Domestication.*—The ostrich proved itself readily amenable to farming methods and was found to breed freely under restraint. The industry was very remunerative and rapidly developed into one of the principal agricultural activities of the Cape Colony. Within fifty years the ostrich, wild and highly nervous, has been reduced to a thorough state of domestication. The details of management required for the production of successive plumage crops of the highest perfection have been worked out, and the few parasitic diseases to which the bird is subject have been combated. Methods of chick-rearing have been elaborated, and by selective breeding the plume has been brought to a high state of perfection. One fact which has been fully demonstrated is the highly sensitive nature of the feather growth. Unless the bird is maintained in the highest condition of nutrition during the six months required for a feather crop to grow and mature the character and quality of the plumage suffer. Any imperfection of growth greatly depreciates the plume, often rendering it almost valueless. Only certain districts of the Union, on account of peculiarities of soil and climate, are found to be favourable to the production of plumes of the highest type. The restraining of the bird within farm limits has led to an extensive system of wire-fencing. The necessity for high feeding has resulted in the laying down of crops, particularly lucerne, which has involved the construction of numerous systems of irrigation.

(iii) *Statistics.*—The high returns from the sale of feathers and birds were in practically all cases devoted to general farm improvement, and the ostrich districts progressed rapidly. Pairs of breeding birds, one cock and one hen, were occasionally sold for as much as £1,000, and the prices obtained for chicks varied from £5 to £50, according to the quality of their plumage. The clipping of feathers from a single bird fluctuated in value from £1 to £20. No cruelty whatever is involved in procuring the feathers. The clipping of the ripe plumes means no more to the bird than does shearing to a sheep, a humane consideration which has undoubdtely added to the success of the trade. The output has steadily increased. In 1913 the industry attained its highest point of success, the weight of the feathers exported from the Union during that year reaching the total of 1,023,307 lb. valued at £2,953,587, and representing an average value of £2. 17s. 9d. per lb. As the result of a combination of causes, but principally of over-production, a set-back in prices and in demand eventuated towards the end of 1913, which, with the outbreak of war in 1914, brought about an almost total collapse of the feather trade. Prices fell to as low an average as 15s. per lb., and the quantity exported to less than a fourth that of normal times. This consequence of the war was natural and unavoidable in the case of an article of luxury, and for the past few years ostrich farmers have suffered greatly. Many have taken to other branches of farming, so that no farmer is now wholly dependent upon ostriches as a means of livelihood. The number of ostriches throughout the country has been reduced by more than half, only birds of superior plumage having been retained against the restoration of more settled economic conditions.

With the signing of the Armistice towards the close of 1918, and later the release of vessels for exportation, the feather industry underwent a rapid revival. Before the middle of 1919 prices had been restored to a basis which again made ostrich farming a paying proposition, but since that time the prices have steadily fallen, owing to the general financial depression and unsatisfactory exchange rates which ensued after the War. Farmers have had a severe lesson in the great slump which existed all through the War and since, and the prices of good breeding birds and chicks have not risen to anywhere near the figure they realized prior to this period.

In order to provide funds for the rehabilitation and organization of the ostrich feather industry, a levy of 2 per cent. on the declared value of ostrich feathers exported from the Union was instituted from the 1st September, 1923.

The following table shows the number of ostriches in the Union at the dates specified :—

NUMBER OF OSTRICHES IN EACH PROVINCE, 1904 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904 (General Census).....	357,970	1,523	14	1,323	360,830
1911 (General Census).....	728,087	4,111	5,441	9,097	746,736
1913 (31st December).....	756,923	5,081	4,591	9,718	776,313
1916 (30th June).....	379,427	4,259	8,927	6,415	399,028
1918 (Census of Agriculture)...	300,906	6,022	3,110	4,227	314,265
1919 (30th April).....	273,490	1,900	2,820	3,860	282,070
1920 (30th April).....	277,700	1,670	2,450	2,160	283,980
1921* (30th April).....	255,661	1,468	2,840	1,859	261,828
1922 (30th April).....	263,971	937	1,402	2,068	268,378
1923 (31st August).....	238,830	635	890	747	241,102
1924 (31st August).....	204,388	671	850	876	206,785

* A table classifying the various types of ostriches in the Union at the 30th April, 1921, is given in the sixth issue of this *Year Book*.

A table showing the quantity and value of ostrich feathers exported from the Union will be found in Chapter XVIII.

9. **Poultry.**—During the past fifteen years poultry keeping has developed enormously in South Africa, and this expansion has taken place entirely on commercial lines, for it is now realized as a basic fact that egg-production can be made a payable proposition, provided the business is conducted on sound commercial lines and costs of production reduced to the lowest possible figure commensurate with efficiency.

Until recently, the tendency was for commercial egg farms to be located near to the larger consuming centres, but within the past five years several large commercial plants have been established in various parts of the country remote from the larger towns, whilst year by year the farmers throughout the Union are realizing that it is the hen which brings in the monthly cheque which is so useful in meeting current expenses. But there are still a very large number of farmers, especially those operating on a small scale, who live on credit during the greater part of the year, relying on the returns from their crops to liquidate the account. Had these kept a flock of 100 to 200 laying hens the monthly cheque derived from these would have gone a long way towards meeting the local store account, and thus left the returns from the crops practically intact.

With the establishment of egg circles in every Province of the Union, the difficulties of marketing poultry produce to the best advantage have been removed. By joining such bodies, the producer has only to rail his eggs regularly and frequently, and the circle disposes of them to the best advantage and posts a regular monthly cheque.

The method of selling eggs by barter through the medium of the local storekeeper can never yield a satisfactory return to the producer, for only the lowest valuation is allowed for the eggs, and goods are supplied to the extent of such valuation; thus, the storekeeper reaps a double advantage by making a profit on his goods and also on the eggs which he accepts in exchange.

The export of eggs from South Africa is steadily increasing, and as our plentiful season of production coincides with the period of scarcity in Europe, there is a ready market oversea for the whole of our surplus. Our first export took place in 1914, when 1,927 cases—each containing 30 dozen eggs—were shipped to London. This has continued annually until in 1924 the export figure reached 76,281 cases. The rapid growth in the quantity of eggs handled by egg circles will be realized from the following figures :—In 1922 only 2·9 per cent. of the eggs exported from South Africa were shipped by egg circles. In 1923 this figure rose to 10·8 per cent., whilst in 1924, egg circles shipped 13·4 per cent. of the total export, and it is expected that a still further advance will be recorded during the 1925 export season. In 1922 a levy of 9d. per case was placed upon all eggs exported from the Union, the proceeds being devoted to the development of the industry. The establishment of this fund enabled the dispatch of a poultry officer to England in 1924 with a view to obtaining the most up-to-date information in regard to marketing and opening up fresh markets for South African poultry produce.

The report of Mr. A. Owen-John on his investigations during his recent visit to England and the Continent has been published in the Agricultural Press and affords most instructive and interesting reading. The suggestions contained therein as to improved methods of marketing are being carried into effect and will doubtless have a wide-reaching and beneficial effect on the industry.

The following table gives particulars of the poultry owned in the Union, as ascertained at recent censuses :—

NUMBER OF POULTRY IN EACH PROVINCE, CENSUS OF 1921 AND ON 30th APRIL, 1922.

Province.	Fowls.		Ducks.		Geese.		Turkeys.	
	1921.	1922.	1921.	1922.	1921.	1922.	1921.	1922.
Cape	3,730,058	3,845,683	117,755	139,129	90,789	90,050	83,956	89,731
Natal	1,650,927	1,521,752	59,582	63,367	10,243	8,239	14,843	15,073
Transvaal	2,743,847	2,649,654	105,003	124,516	54,450	52,250	62,850	71,223
Orange Free State	1,293,699	1,164,735	74,292	88,798	60,908	53,699	74,023	86,514
TOTAL	9,418,531	9,181,824	356,632	415,810	216,390	204,238	235,672	262,541

10. **Bees.**—The Union Government has an official on its professional staff whose special duty it is to give advice on bee-keeping matters. Bee-keeping could, no doubt, be expanded greatly and profitably in the Union, the demand for hive products being considerably in excess of the supply. At the present time large quantities of beeswax are imported from Central and East Africa. With the object of minimizing the risk of introducing disease, the Union, in common with Rhodesia and Portuguese East Africa, prohibits the importation of honey and reserves to the Government exclusively the right to import bees. For many years bees have not been admitted. The importation of beeswax and foundation comb is allowed only under special permit, and is conditional on the wax having been subjected to prolonged heating. The prohibition of the importation of honey, combined with meagre production here, renders the price of this article in the Union very high. Until the latter part of 1917 South Africa was supposed to be free of infectious bee brood diseases. European foul brood and sacbrood have since become recognized in all four Provinces of the Union, but they are not known to cause serious loss in any part of the country, and, in general, they escape even the observation of the owners of the infected colonies.

The table hereunder gives particulars as to the production of honey in the Union :—

PRODUCTION OF HONEY IN THE UNION, 1911, 1918, AND 1921.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Honey (1911)....lb.	100,693	2,149	3,383	2,262	108,487
Honey (1918)*...lb.	416,936	46,542	57,424	29,691	550,593
Honey (1921)*...lb.	279,746	22,810	58,593	26,522	387,671
Beehives (1918)*.No.	44,812	4,690	8,607	6,812	64,921

* Native Locations and Reserves not included.

11. **Losses of Stock from Drought and Disease.**—In September, 1920, a Commission was appointed to investigate the important question of drought. The Commission, which consisted of Messrs. H. S. du Toit, D.T.D. (Chairman), S. M. Gadd, G. A. Kolbe, A. Stead, B.Sc., F.C.S., and R. J. van Reenen, B.A., C.E., A.M.I.C.E., was instructed to inquire into and report upon :

(1) the methods by which losses to farmers owing to periodic droughts in the drier parts of the Union may be prevented, either by public or private action ; and in particular whether any changes in farming methods are necessary for this purpose ;
(2) any improvements in farming conditions generally, such as the provision of more water, prevention of soil erosion, and any other matters which have a close bearing on point (1) ;
(3) the methods by which indigency arising among the farming community in consequence of such losses could best be dealt with ;
(4) the production of stock-feed by the cultivation of various grasses.

The first report of the Commission, submitted in April, 1922, was summarized in the sixth issue of this *Year Book*. Its final report, published in June, 1924—a voluminous and important State document—emphasized the conclusions recorded in the interim report. The following summary of the contents should be read in conjunction with the terms of reference given above :—

(1) *Changes in Farming Methods.*—The most pressing and necessary change in farming methods is the abolition of the usually practised kraaling of stock and its substitution by the paddocking system. Kraaling is detrimental to the veld as well as to stock ; it leads to a diminished efficiency of rainfall, which is a much greater menace than a decreased rainfall. Complete grazing control through an efficient system of paddocks should be the goal ; but an efficient paddock system demands the provision of an adequate and pure water supply. The reduction of drought losses should lead to improvement in the breed of animals. Over-stocking is bad farming. Farmers should accumulate fodder reserves for drought periods. Wind-breaks and shade do much to assist in maintaining stock. It is calculated that the income of the Union from wool alone would be doubled if the paddock system were generally adopted, while if all phases of the small stock industry be taken into account, the annual increased return, capitalized at even 10 per cent., would very nearly equal the fixed property valuation of the Cape Province. There is room for much improvement in the economic use of water.

(2) *General Improvement in Farming Conditions.*—The improvements outlined in the previous paragraph require the alteration of certain general conditions, to bring about which is beyond the powers of the individual farmer. For example, the jackal is responsible for much of the faulty small-stock farming, and he must be got under control or even be exterminated. The rapid adoption of the paddock system would be facilitated by making cheap fencing material available and by minor alterations in the fencing law. The farmer should be encouraged to develop the water resources of his farm. Stock thefts should be discouraged. The failure to realize the benefits that would accrue from the better methods of farming is a reason preventing their adoption, an obstacle which educational effort would do much to remove. In this the organization of farmers would greatly assist, and for the achievement of this end the State should detail suitable officers. Farmers' organizations will ease matters during droughts. Improvements of transport facilities and generally improved market facilities will greatly ameliorate the farming conditions. Drought losses could be diminished if reliable seasonal forecasts were possible : the Government should appoint a committee of experts to determine what steps should be taken to obtain such forecasts. The provision of cold storage and of factories for making meat products would assist in the more economical use of the veld by enabling the farmer to dispose of his stock when in good condition. Deterioration of the vegetal cover and the resulting soil erosion are doing much damage and seem to be main causes of the decreasing European population in the Cape Midlands. The soil is an irreplaceable national asset. The State should therefore actively assume its responsibilities in connection with the conservation thereof by appointing a *reclamation officer*. Veld burning as practised is detrimental to the country, but cannot be stopped by legislation. In most cases education will be the only deterrent ; but it is considered that in certain areas of high value as catchments feeding irrigation works, the prohibition of grazing would lead to the cessation of veld fires. Evaporation plays a very important rôle in the social economy of the Union ; probably many times the quantity of water which finds its way to the sea by rivers is lost in unproductive evaporation, which would be reduced by the maintenance

of an efficient vegetal cover, and through that, the prevention of soil erosion. Irrigation, though definitely limited in extent by the run-off of rainfall, topography, soil, and financial factors, will always be an important aid to crop raising and stock farming. Through deterioration of the vegetal cover and soil erosion, the efficiency of the catchments of most rivers used for irrigation is decreasing. The State should direct the preservation and reclamation of those catchments, which relatively and luckily are small. Since the silting up of dams is beyond the control of the irrigator, the State should assist *inter alia* by aiding farmers to paddock and by preventing soil erosion. Afforestation with suitable species for improving the head-waters of our rivers and their tributaries, and for other reasons, is to be recommended. The study of insect and other pests and of weeds which reduce the grazing yield should be undertaken by the State. The State should also make preparations to establish "fodder banks."

(3) *Indigency.*—Drought and other causes work together in producing indigency. The general improvement of conditions will decrease poverty, which is most intense after droughts. Education and the improvement of transport and market facilities are needed. Climatic and genetic conditions should also be considered.

(4) *Production of Grass Feed.*—Usually farmers make no provision for droughts. They should do so by sparing veld, making hay, by growing fodder crops (including spineless cactus), and crops for making ensilage. They should also establish "fodder banks." The Department of Agriculture should carry out certain investigations with reference to fodder plants.

The following table indicates the extent of the losses suffered by farmers in the Union from the death of stock in consequence of disease and drought, as shown in the returns of the agricultural censuses of 1922–23 and 1923–24 :—

DEATHS OF STOCK FROM DISEASES AND DROUGHT DURING YEARS 1922–23 AND 1923–24.

Description.	1922–23.				1923–24.			
	From Disease and Drought.	*Killed by Vermin.	*Stolen or Missing.	From All Causes.	From Disease and Drought.	*Killed by Vermin.	*Stolen or Missing.	From All Causes.
Cattle.....	733,577	—	—	733,577	746,208	—	—	746,208
Sheep..... Lambs..... Goats..... Kids.....	6,090,324	345,004	510,108	6,945,436	4,046,980	303,997	404,306	4,755,283

* Not enumerated in Native Reserves, etc.

NOTE.—Returns received at the agricultural censuses for 1921–22, 1922–23, and 1923–24 show that the following crop losses were sustained by farmers in the Union through damage by hail :—1921–22, £867,353 ; 1922–23, £549,599 ; 1923–24, £513,679.

12. **Transportation of Live Stock.**—A Departmental Commission was appointed by the Railways and Harbours Administration in August, 1923, to investigate and report upon the transit of live stock, other matters incidental to the conveyance of live stock by rail, and the development of the export meat traffic.

The terms of reference were :—

(*a*) The possibility of effecting improvements in the transit of live stock by means of through services and special facilities on branch lines.
(*b*) The desirability of extending running block load trains on certain fixed days.
(*c*) Whether live stock should not be conveyed direct to destination without detraining en route.
(*d*) The most suitable type of truck.
(*e*) Feeding and watering either in trucks or at stipulated points en route, and necessary appliances accommodation and charges therefor.
(*f*) Cleaning and disinfecting of cattle trucks and necessary facilities for accommodation and charges therefor.
(*g*) Electric or other prodders for assisting in loading of animals.
(*h*) Standard type of loading pen and ramp, and the best method of loading.
(*i*) Development of export meat traffic ; whether to be conveyed from inland to coast frozen or chilled, and type of insulated or refrigerated cars therefor.
(*j*) Periodical inspection of live stock en route by qualified official.
(*k*) Dehorning of cattle to minimize injury and cruelty.
(*l*) Delivery to consignees of stock at sale centres on Saturdays, Sundays, and public holidays.

The Commission, which was representative of various interests, reported on the 7th November, 1923.

Following on the report of the Commission, the Railways Administration instituted various improvements in the transportation of live stock, including a system of special fast live stock trains which commenced running in June, 1924.

§ 3. Cereals.

A.—General.

1. **Cultivation of Cereals.**—Wheat, rye, oats, and barley are commonly designated "winter cereals" because they are almost exclusively grown during the winter months within the limits of the Union. The types grown, however, are relatively early maturing and correspond to the spring types of the Northern Hemisphere. The Union produces sufficient oats, rye, and barley to meet its own needs. The produce from fully half the acreage annually seeded to these crops is consumed in the form of hay, soiling, and grazing crops. The amount of wheat produced averages around 70 per cent. of the requirements of the country, which are estimated at 12,000,000 bushels. The remaining 30 per cent. is imported. The South African wheat market is thus largely influenced by the price of wheat overseas.

Early in the development of the Cape Colony the south-western coastal districts became recognized as the granary of South Africa because of their climate. At the present time they produce 40 per cent. of the wheat crop and larger proportions of the rye, oat, and barley crops. Secondary areas of production are the central north-east Cape and the north-eastern Orange Free State.

Wheat, oats, and barley seed is now usually treated for smut prior to sowing, so that the resulting grain crops are fairly free from this trouble. Rust occasionally does considerable damage to both the wheat and the oat crops, and attention is being directed to breeding resistant strains.

The following table shows the average area of land in the Union sown to the different winter cereals each year :—

AREA SOWN TO WINTER CEREALS IN THE UNION—AVERAGE—1918 TO 1923.

Crop.	Morgen.	Per Cent. of Total Winter Cereal Area.
		%
Wheat	430,690	47·5
Oats	333,274	36·7
Rye	87,053	9·6
Barley	55,619	6·2
TOTAL	906,636	100

2. **Wheat.**—In the western part of the Cape Province all areas are not equally well adapted for wheat growing. In the Darling, Malmesbury, and Piquetberg neighbourhoods practically all available land is devoted to the cultivation of cereals. The return obtained is lower and less remunerative than in the districts of Caledon and Bredasdorp. The average return over the whole south-west Cape is about 12 bushels per acre. The low yield secured is due to a low fertility of the soil and in part to insufficient culture of the ground. In the central north-east Cape and in the north-eastern Orange Free State, wheat production fits in well with the general type of mixed farming as a winter dry land crop. In these areas the cost of production is generally lower than in the south-western Cape, but the crop is less certain. A considerable quantity of wheat of superior quality is also produced under irrigation in the Transvaal and in limited areas in the Karroo. This supply is generally devoted to local requirements and will be maintained only as long as the market conditions justify wheat growing.

In the culture of wheat, double-furrow and three-furrow ploughs are in general use. The grain is either sown broadcast and ploughed or harrowed in, or else drilled in. Better returns are obtained from the latter practice. The rotation generally practised is wheat, oats, oats for hay, fallow for grazing (ouland), cultivated fallow (brakland). In the western section where the soils are more depleted, the land is left fallow for an extra year, or one of the oat crops is eliminated.

The use of fertilizers has become general. The standard dressing consists of a mixture of Government guano (see § 11) and superphosphate applied at the rate of 150–250 lb. per acre. South African soils are notoriously deficient in phosphoric acid, and in the winter rainfall area, in lime also, and to a less extent in potash, while owing to the effect of the

very dry summers in the chief producing area in preventing the accumulation of organic matter, and the effect of wet winters in leaching out of the soil such nitrates as are produced, the need for nitrogen is one which cannot be disregarded. Progress is being made towards obtaining a suitable legume crop for ploughing under as a green manure, with a view to improving the fertility of the wheat growing areas.

Sowing takes place from April until June ; harvesting occurs in November and December. The early varieties of wheat tiller badly and require a thicker seeding. Such varieties are usually seeded at the rate of about 40–50 lb. per acre, while in Great Britain seeding is usually at the rate of 2 bushels (120 lb.) per acre or more, showing that local experience has found a thin seeding to be all that the soil can nourish to maturity. Attention is being directed at the Government Experiment Stations to the production of more prolific strains and to a system of rotation which will maintain and improve the fertility of the soil.

The older varieties such as *Gluyas Early, Spring Early,* and *Rieti* are gradually being displaced by new hybrids and selections produced at the Government Experiment Stations. The most successful of these are *Union* 17 and *Union* 52 among the early wheats, *Kleintrou* and *Darlvan* among the mid-season wheats, and *Bobriet* and *Gluriet* among the late wheats.

Harvesting is generally done by means of the self-binder, and harvesting operations are seldom delayed through bad weather. Thrashing is generally completed in January or February, and the grain marketed soon after. Good markets exist for properly graded wheat.

The following table shows the area sown to wheat in the different Provinces in 1923 :—

AREA SOWN TO WHEAT IN THE DIFFERENT PROVINCES, 1923.

Province.	Morgen.	Per Cent. of Total Sown Area.
		%
Cape	316,663	77·4
Orange Free State	55,546	13·6
Transvaal	35,960	8·8
Natal	698	0·2
TOTAL	408,867	100

The following tables give particulars regarding the production, importation, and consumption of (1) wheat, and (2) wheaten flour and meal from the year 1910–11 to 1923–24. All available information has been utilized in the preparation of the tables, proportionate figures being interpolated in cases where information is incomplete or not available :—

(i) **WHEAT—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1923–24.**

Year.	Total. Production.	Total Production (less Exports).	Imports (less Re-exports.)	Retained or Available for Consumption.	Wheat Ground as Flour and Meal.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	362,063	362,019	193,046	555,065	387,748
1911–12	389,980	389,911	144,088	533,999	432,160
1912–13	420,050	419,968	217,272	637,240	421,322
1913–14	452,440	452,380	274,167	726,547	414,158
1914–15	487,320	487,275	213,978	701,253	482,266
1915–16	438,588	438,544	213,682	652,226	470,520
1916–17	389,856	389,704	190,145	579,849	524,524
1917–18	608,971	608,513	114,704	723,217	569,206
1918–19	500,300	499,088	59,204	558,292	569,734
1919–20	329,310	327,725	119,618	447,343	568,560
1920–21	456,802	455,718	152,348	608,066	504,664
1921–22	522,531	521,876	56,155	578,031	522,946
1922–23	376,271	375,824	215,607	591,431	563,394
1923–24	**358,392**	**358,225**	**287,533**	**645,758**	**604,708**

(ii) WHEATEN FLOUR AND MEAL—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1923–24.

Year.	Total Milled Production.	Total Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	298,268	282,846	138,843	421,689
1911–12	332,431	315,987	121,741	437,728
1912–13	324,094	308,603	137,453	446,056
1913–14	318,583	305,318	149,069	454,387
1914–15	370,974	363,309	99,408	462,717
1915–16	379,668	372,928	73,250	446,178
1916–17	428,576	418,140	61,233	479,373
1917–18	435,680	422,302	28,145	450,447
1918–19	461,874	449,044	25,838	474,882
1919–20	441,170	430,267	88,255	518,522
1920–21	397,986	389,431	135,125	524,556
1921–22	422,380	411,772	41,140	452,912
1922–23	442,062	432,874	82,642	515,516
1923–24	478,420	469,618	86,159	555,777

3. **Oats.**—The oat crop has a more important place in local agriculture than the wheat crop can generally command. This is attributable to the fact that oats will grow more satisfactorily than wheat upon poor soils; that the oat crop is not always grown for grain, but is sold in the form of hay, in which state it finds a ready market in most of the larger towns of the Union for cattle and horse feeding; and that, being grown for hay, it can be sown thickly, a larger return per acre being thus secured.

With minor exceptions the varieties cultivated belong to the *Red*, *Mediterranean* or *Algerian* type (*Avena Sterilis*). *Algerian* is the most popular variety. Besides being the best grain yielder, it provides an excellent quality oat-hay. *Texas*, *Sidonian* and *Smyrna* are good grain varieties, and *Burt* is an excellent early maturing variety for oat-hay. The weight per bushel of oats grown in the western districts of the Cape Province is about 40 lb. These varieties, however, do not yield the same meal as the heavier oats of other countries, which possess a much thinner skin, and not the same development of awn. Manuring for the oat crop is in general similar to that for wheat. Oats are more suited to medium loamy soils, while wheat requires a deeper soil with a texture of loam.

The thicker seeding of the oat crop (50 to 60 lb. per acre) enables a fine quality of oat-hay to be produced. Oat-hay grown under summer rain conditions is very stubbly compared with Cape winter oat-hay, and possesses a considerably lower feeding value. The farmer uses his oat crop for his equine and bovine stock as hay, or, as is done now by an increasing number, in the form of grazing. Oats make a better mixture with vetches than does wheat, either for grazing off with sheep, for silage, or for hay, factors which add to the popularity of the oat crop.

The yield of oats is from seventeen to twenty-four bushels per acre. Under ordinary conditions, when prices are not inflated, the oat crop is as valuable as, if not slightly more valuable than, the wheat, and the value of an acre of each is about £2. 10s. or £3. The average cost of production varies very considerably in different areas, so that the profit per acre cannot be readily stated.

The following tables show (i) the area seeded to oats in the different Provinces in 1923, and (ii) the production of oats from 1904:—

(ii) AREA SEEDED TO OATS, 1923.

Province.	Morgen.	Per Cent. of Total Area.
		%
Cape	234,209	63·7
Orange Free State	76,998	20·9
Transvaal	45,783	12·5
Natal	10,965	2·9
TOTAL	367,955	100

(ii) PRODUCTION OF OATS, 1904 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1904 (General Census).....	121,350	327	3,839	5,197	130,713
1911 „ „	184,339	6,546	23,260	94,993	309,138
1918 (Census of Agriculture)..	272,343	1,869	20,127	50,461	344,800
1919 „ „ ..	152,813	2,059	17,995	31,583	204,450*
1920 „ „ ..	130,328	318	11,517	7,774	149,937*
1921 „ „ ..	175,850	303	8,097	6,984	191,234
1922 „ „ ..	136,491	607	12,827	16,034	165,959*
1923 „ „ ..	131,526	803	19,382	31,575	183,286*
1924 „ „ ..	202,012	350	4,990	3,727	211,079*

* Excluding oats produced in Native Locations, etc., which amounted to 9,588,600 lb. in 1918, and 2,152,650 lb in 1921.

Details of the exports of oats will be found in Chapter XVIII.

4. **Rye.**—Rye is the least important crop of the winter cereals. The area annually sown is slightly under 100,000 morgen, and of this area fully 30 per cent. is fed off by stock. It is used as a grazing crop more commonly in the north-west Cape and eastern Free State than in the south-west Cape. Oats provide a better hay crop than rye, and barley a better green fodder. The straw does not make a satisfactory roughage for stock on account of its toughness and because of the large proportion of fibrous material which it contains as compared with oat straw. Mixed with vetches or peas, it provides a good ensilage crop on the poorer soils.

The grain of rye is used to a limited extent for making rye bread and meal and as a stock feed. As a stock feed rye grain is not so suitable as oats and barley. In the south-west Cape crops of rye and oats mixed are grown on the poorer soils for feeding mules. For grain rye is grown chiefly on the poorer soils of the south-west Cape and on the more sandy regions in the north-western corner of the winter rainfall area. The better soils of these areas are devoted to wheat and the poorer ones to rye. The yield obtained from rye is lower than that from the other cereals and seldom exceeds 12 bushels per acre.

The following tables show (i) the area sown to rye in the different Provinces in 1923, and (ii) the production of rye in the Provinces from 1904 :—

(i) AREA SEEDED TO RYE, 1923.

Province.	Morgen.	Per Cent. of Total Area Sown.
		%
Cape.....	58,580	60·8
Orange Free State.....	35,331	36·7
Transvaal.....	1,614	1·7
Natal.....	763	0·8
TOTAL.....	96,288	100

(ii) PRODUCTION OF RYE, 1904 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1904 (General Census).....	18,762	—	81	97	18,940
1911 „ „	33,857	166	254	6,264	40,541
1918 (Census of Agriculture)..	40,950	124	1,250	9,762	52,086
1920 „ „ ..	29,672	76	922	2,720	33,390
1921 „ „ ..	35,169	123	1,316	7,521	44,129
1922 „ „ ..	31,198	124	854	5,719	37,895
1923 „ „ ..	37,886	27	734	6,157	44,804
1924 „ „ ..	35,254	37	585	1,889	37,765

5. **Barley.**—The barley grown in the Union is used for grain, for grazing, and for soiling. Each year approximately 60,000 morgen are seeded to this crop, and of the production 18 per cent. is grazed off and a further 12 per cent. is cut green and fed to stock as a soiling crop. Nearly 20,000 tons are used in this manner in the late winter and early spring. The varieties most suitable for this purpose are *Early Cape Six-row Barley* and *Hulless Barley* or *Barley Wheat*. Feeding barley is grown chiefly in the Cape Province, more particularly in the south-west Cape and in the south and south-eastern coastal areas. In the latter area it is a surer crop than wheat, which is very subject to rust. In the south-west Cape it may occupy the place of oats in the rotation.

The grain produced is used chiefly for feeding to live stock and for malting. As far as can be determined, 20 per cent. of the production is converted into malt. Barley of the grade required for malting is grown under irrigation chiefly in the districts of Worcester, Montagu, Robertson, Alexandria, and Lydenburg. Under irrigation in these districts barley gives a better return than wheat and is not susceptible to rust. Consistent efforts have been made to introduce various types of European two-row barley, which have a greater diastase-content than the six-row types. Under local conditions, however, these types are poor yielders, and most of the local malt is produced from bright-coloured plump *Cape Six-row Barley*, having a bushel weight of 50–52 lb. The malt compares favourably with malt made from Californian or Chilian barley, but it does not entirely dispose of the necessity for the importation of malt made from European two-row barleys.

Barley is sown in April–May at the rate of 50 lb. per acre and gives an average return of from 25 to 30 bushels to the acre. The variety generally grown is the *Cape Six-Row*. *Smyrna* and a drought-resistant variety known as *Mariout* are also commonly found.

The following tables show (i) the area of land seeded to barley in the different Provinces in 1923, and (ii) the production year by year in the Provinces:—

(i) **AREA SEEDED TO BARLEY, 1923.**

Province.	Morgen.	Per Cent. of Total Area.
		%
Cape	49,835	81·5
Transvaal	6,904	11·3
Orange Free State	3,465	5·7
Natal	906	1·5
TOTAL	61,110	100

(ii) **PRODUCTION OF BARLEY, 1904 TO 1924.**

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1904 (General Census)	46,023	243	879	1,370	48,515
1911 " "	56,026	421	1,857	2,841	61,145
1918 (Census of Agriculture)	94,457	250	1,876	1,989	98,572
1919 " "	44,172	120	3,029	2,073	49,394*
1920 " "	32,409	42	1,847	261	34,559*
1921 " "	47,879	64	3,143	985	52,071
1922 " "	58,186	111	3,801	956	63,054*
1923 " "	51,480	103	6,127	525	58,235*
1924 " "	48,052	36	1,683	383	50,154*

* Excluding production of barley in Native Locations, etc., which amounted to 1,394,700 lb. in 1918 and 1,850,400 lb. in 1921.

6. **Maize.**†—Maize production in South Africa is now one of the industrial mainstays of the country, and considerable quantities of maize are exported oversea annually. The industry is firmly established, and the high quality of maize produced in the Union is well-known to maize-importing countries. Prior to the Anglo-Boer war, insufficient maize was produced to meet local requirements, but maize-growing rapidly assumed great

† See section B below.

importance, and now occupies the same position in farming in the Union as wheat does in Australian and Canadian agriculture. That the industry has made rapid strides is shown by the fact that the total production has increased from 361,169 tons in 1904 to 1,900,000 tons in 1923. In less than a score of years, therefore, the production has increased by over 500 per cent. The value of the 1923 record crop, calculated at 10s. per bag, amounted to £9,500,000. This is equivalent to about one-ninth of the value of the total agricultural production of the Union. *

For a considerable time the *flint* breeds of maize alone were known. In the last two decades, however, which have seen a wider recognition of the country's suitability for maize cultivation and the introduction and acclimatization of many excellent *dent* varieties, maize has come to be the chief grain crop of the country. The nature of the crop and the methods of cultivation have undergone considerable change, as the knowledge of the limitations and possibilities of maize-growing has become clearly defined. Flint varieties, although generally not as high-yielding as the later-maturing dents, are found to be the most suitable sorts under adverse climatic conditions such as obtain in the drier western parts of the Union and also in areas with high altitudes where the growing season is not sufficiently long to mature the late dent varieties. The dents are found most useful in areas with a fairly long season, enjoying normal soil and climatic conditions; hence, where such conditions prevail, the dents are to be given preference to the flints. There is still much scope for maize growers in the Union. The greater yields that will result from more intensive culture, the increasing demands of consumers, stock feeders, and manufacturers, and improving methods of transportation, promise good returns to maize growers. The area within which maize can be grown successfully has come to be more or less defined. That a definite maize belt exists in the Union has not always been realized. Farmers outside the zone persist in growing this crop, notwithstanding repeated failures. Maize, not being a resistant of drought, is not a dry-land crop, but is more in the nature of a semi-tropical plant, indigenous to countries which enjoy considerable summer heat accompanied by fairly plentiful rains falling in heavy showers at short regular intervals, and it is this characteristic which limits the regions in which maize can be cultivated to the best advantage. In this respect maize is unlike kaffir corn, to which continuity of growth is not essential owing to its power of remaining dormant during intervals of dry weather, and of resuming growth when the rains recur. Thus is explained the inability of the coastal districts of the Union, and of the drier regions, such as portions of the Karroo, to produce maize with success.

Suitability of climate and of soil, and considerations of labour and of markets, are the factors which in a sense govern the production of maize. The principal maize-growing area in the Transvaal extends from Ermelo in the east to Lichtenburg in the west, southwards to the Vaal River, and north of a line drawn between Middelburg and Rustenburg. Outside this region small maize areas have been developed, in the Waterberg and the Zoutpansberg. The Orange Free State, in which Province is grown the heaviest crop per square mile, is, with the exception of the south-western portion, particularly suitable to maize production. The most fruitful maize fields of Natal are situated in the midlands, at an elevation of from 2,000 to 3,000 feet. Yields of fifteen bags per acre are often obtained in this area. Much of the Cape Province is unsuited to the growing of maize. In the Transkei and adjoining districts, however, the conditions are favourable, and considerable development has taken place. The central portion of the *high veld*, comprising the Districts of Heidelberg, Bethal, Standerton, Frankfort, and Heilbron, is at present the most productive area in the Union. The acreage under maize here is very extensive, and good crops are grown, producing from ten to fifteen bags per acre. The maize zone in South Africa may be said to possess two distinct and valuable advantages over the famous corn belt of the United States. The growing season is longer by from four to seven weeks, and this makes the season for planting a considerably longer one. Again, the drier atmospheric conditions in the Union produce a grain with a lower moisture-content; and this grain thereby less liable to injury during transit is more suitable for export, as well as for manufacturing purposes. The rainfall is generally sufficient if the soil is well cultivated, and the soil itself is of good quality throughout and quite excellent in parts. Labour is fairly plentiful and cheap; an expanding home market fairly well served by the railway is close at hand; and an assured and readily accessible market oversea, with cheap rates of transportation to Union ports and by ship, is being organized under the special direction of the Government. A well-appointed system of grain inspection and testing at shipping points has been established, and every endeavour is made to maintain a regular and cheap oversea service for the export trade of the country.

The marketing of maize in the Union, from the farmer's point of view, is rapidly becoming revolutionized. The old system of disposing of the crop for cash to the local storekeeper is giving place to marketing through co-operative societies and similar organizations. The elevator system will further improve the system of marketing to the advantage of the producer. In the past the farmer in many cases had to dispose of his crop as soon as he had reaped it, and usually at a time when prices are lowest. With the elevators this difficulty

* The yield in 1925 proved a further record. The final results of the agricultural census indicate the production at 2,429,558 tons and the value at 10s. per bag as £12,147,790.

will be largely removed by the issue of negotiable certificates for maize delivered to the elevator. These certificates will provide good security whereby the farmer will, if necessary obtain advances from the local bank.

In the wide field of agricultural interests in the Union the Government is giving special attention to maize among the various crops. At the Experiment Stations situated within the maize belt, extensive experiments are carried out which have for their object the determination of the best varieties to grow, the best systems of rotation to be practised, and the fertilizers most suitable to local soil needs. Large quantities of pure selected seed are issued to farmers at a moderate price. A staff of trained experimentalists and instructors, resident and itinerant, is maintained to give advice by correspondence and by lecture, and a maize-growing competition for boys has been established in order to encourage a wider and better knowledge of the value of this crop among those whose ranks will provide the farmers of the future. The Maize Growers', Breeders', and Judges' Association is an influential body aiming at the encouragement and development of this branch of agriculture, so that every endeavour may be made to place the Union in the forefront of the maize-producing countries of the world.

The following tables give particulars regarding the production, importation, and consumption of (i) maize, and (ii) maize meal during the years 1910–11 to 1924–25. All available information has been utilized in the preparation of the tables, proportionate figures being interpolated in cases where information is incomplete or not available.

(i) MAIZE—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1924–25.

Year.	Total Production.	Total Production (less Exports).	Imports (less Re-exports.)	Retained or Available for Consumption.	Maize Ground as Maize Meal.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	1,726,503	1,441,125	1,458	1,442,583	575,442
1911–12	1,823,200	1,610,863	2,094	1,612,957	592,189
1912–13	1,925,050	1,799,401	17,527	1,816,928	605,911
1913–14	2,033,100	1,904,828	19,438	1,924,266	614,237
1914–15	2,246,900	1,987,214	3,062	1,990,276	630,005
1915–16	2,167,050	1,840,952	1,961	1,842,913	574,948
1916–17	2,394,000	1,982,958	3,835	1,986,793	831,258
1917–18	2,528,018	2,038,608	5,467	2,044,075	827,076
1918–19	2,319,614	1,941,201	8,346	1,949,547	947,582
1919–20	2,459,312	2,325,118	46,354	2,371,472	888,536
1920–21	2,669,447	2,228,005	25,829	2,253,834	1,121,514
1921–22	2,685,652	2,017,137	683	2,017,820	932,346
1922–23	3,952,758	2,822,570	5,766	2,828,336	854,310
1923–24	2,247,768	2,100,857	7,893	2,108,750	903,152
1924–25	4,859,116	2,998,276	7,498	3,005,774	997,684

(ii) MAIZE MEAL—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1924–25.

Year.	Total Milled Production.	Total Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	527,928	525,311	399	525,710
1911–12	543,292	536,497	412	536,909
1912–13	555,881	547,956	534	548,490
1913–14	563,520	559,187	1,283	560,470
1914–15	577,986	571,892	1,176	573,068
1915–16	527,475	517,970	1,173	519,143
1916–17	615,442	562,906	1,829	564,735
1917–18	758,888	627,748	1,728	629,476
1918–19	907,090	639,213	5,485	644,698
1919–20	811,788	589,986	13,125	603,111
1920–21	1,021,754	924,592	9,222	933,814
1921–22	845,772	601,239	1,096	602,335
1922–23	773,800	686,973	1,491	688,464
1923–24	817,232	696,928	5,808	702,736
1924–25	903,268	632,949	1,696	634,645

7. **The Sorghums.**—*Kaffir corns* is the term most generally applied in the Union to these crops, but *sorghums* is more correct, including as it does the *grain sorghums* (kaffir corns), the *forage* or *sweet sorghums*, and *broomcorn*.

(i) *Kaffir Corns.*—The term *kaffir corn* as applied in the Union includes the true *kaffir corns*, the *milos, durras, kaoliang, feterita, hegari*, and several others. The kaffir corns are indigenous to Africa, and comprise the red and white varieties, as well as the varieties obtained by selection from these in other countries. Other grain sorghums have been introduced from Northern Africa, Asia, and North America. The heads of these varieties are typical, varying from the cylindrical long compact heads in the kaffir corns to the ovate, compact, often recurved heads of the milos and durras. The grains also vary in type from the small oval shape to the large flattened type, and, except for the red kaffir corns, are mostly white or light coloured. All the grain sorghums are of medium height, with more or less dry pithy stalks and relatively few leaves.

The red and white kaffir corns have long been used by the natives in South Africa as a food and also in the preparation of an alcoholic drink. In a prepared form, and as a cattle and poultry feed, their use is being extended both in South Africa and in Europe. As potential forage and grain crops for areas where maize cannot be profitably grown, they should be more widely cultivated than they are at present. In the United States of America, kaffir corns, which were introduced about 45 years ago from the Orange Free State, have become the standard grain crops in areas too dry for maize production. They are also grown to some extent as crops for fodder and ensilage. Although recourse to America for improved varieties has been considered necessary from time to time, improvement of the varieties by hybridization and selection is being undertaken by farmers in various centres and by Government institutions. The largest number of types is found in Zululand, though most of these are small grained and late maturing. Selection in the kaffir corns is being undertaken for earlier maturity, greater uniformity, and desirable types of heads and grain. Excepting for some scattered areas of milo, the production of improved imported types is still in the experimental stage. Yields of kaffir corn are equal to or somewhat inferior to maize, but in adapted areas they will outyield maize. Birds are liable to damage the crop somewhat, especially if plenty of cover is available and the acreage is small. Sorghums are also liable to be severely infested with stalkborer.

(ii) *Forage or Sweet Sorghums.*—To this class belong those types with medium to tall plants, juicy, and in many cases sweet stalks, and loose, open heads bearing small coloured seeds. These types usually sucker to a greater extent than the grain sorghums and are more leafy. Owing to the small yield and bitterness of the grain, the sweet sorghums are of little value for grain production, but for silage and forage purposes they are equal or superior to maize. Due to the stooling ability the yields are high, while the silage and fodder are of excellent quality on account of the sugar-content and palatability of the stalks. As with the kaffir corns, the greatest improvement of the sweet sorghums has been effected in the United States of America, where the majority of varieties has been derived from an importation from Natal about 75 years ago.

The sweet sorghums, like the grain sorghums, are extremely well adapted to semi-arid conditions, being drought resistant and able to resume growth and yield well after long, hot, dry spells. The natives, especially in Natal and Zululand, grow many types, mainly for human consumption. On a farming scale the most popular varieties are: *Amber Cane, Planter's Friend, Saccaline*, and *Sorghum saccharatum*. The last-named variety, though tall growing, has many of the characteristics of a grain sorghum and should perhaps be classified as such.

(iii) *Broomcorn.*—This is a type of sorghums with pithy stalks and long, loose-branched heads. Broomcorn, of which there are two main types, the standard or tall and the dwarf, is also drought resistant. It is grown for the heads which are harvested while green and sold after curing for broom and brush making purposes, while the plant after the brush has been removed may be used for silage or fodder, although the stalks do not have the juicy and sweet character of the sweet sorghum stalks. This is a very suitable crop for the drier summer rainfall areas, and the Union should be in the position to export brush to other countries.

(iv) *Poisoning.*—The impression that all sorghums are dangerous when fed to cattle seems to be very widespread. It should be pointed out that the pasturing of the second growth of sorghums and sorghums stunted by drought, or frosted, is dangerous and may result in fatalities amongst live stock. However, when cut and dried, even though stunted or frosted, or when made into silage, the danger from poisoning becomes negligible. Feeding of vigorous growing sorghums and sorghum silage is safe from the point of view of poisoning.

The table hereunder gives the production of kaffir corn in the Union :—

PRODUCTION OF KAFFIR CORN, 1904 TO 1924.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1904 (General Census).....	65,039	4,717	101,361	17,054	188,171
1911 ,, ,, ...	59,884	118,826	92,552	38,283	309,545
1918 (Census of Agriculture)..	93,137	67,405	167,529	32,212	360,283
1919 ,, ,, ..	6,464	9,737	51,955	38,702	106,858*
1920 ,, ,, ..	6,890	15,656	69,104	32,710	124,360*
1921 ,, ,, ..	56,837	61,904	162,345	29,723	310,809
1922 ,, ,, ..	4,767	14,926	68,143	36,724	124,560*
1923 ,, ,, ..	91,586	66,191	176,157	82,051	415,985
1924 ,, ,, ..	37,470	51,107	129,117	28,230	245,924

* Excluding kaffir corn produced in Native Locations, etc., which amounted to 267,665,800 lb. in 1918, and 216,325,400 lb. in 1921.

B.—SURVEY OF ECONOMICS OF MAIZE PRODUCTION.

8. **Importance of Maize Production in the Union.**—The production of maize is of the first importance in the Union, primarily because it is the staple food of the larger part of the population, secondarily because of the economic value of the product as a stock feed and for export to the markets of the world. Allowing for a consumption of four-fifths of a pound per day per unit of the native population, which is not an excessive estimate for times of plenty, a supply of 700,000 tons annually as a food for the native population is required. This excludes the requirements of 700,000 persons of mixed race and Asiatics, and 1,500,000 white persons, as well as the large requirements for the purposes of a food for cattle. Maize has never displaced wheat in the dietary of the white population of South Africa, except in cases of sheer necessity. By itself it is not suitable for making bread, and its combination with wheat and flour during part of the war period was most unpopular. As a supplementary article of diet for the white population, however, maize has a place, and, owing to its cheapness, frequently enters largely into the dietary of European families. In a general way it is estimated that the normal consumption of the Union amounts to about 9,000,000 bags, or 900,000 tons. That which is surplus may be used to an increased extent for feeding animals, for manufacture, and for foreign trade. As in the United States, so in the Union, the primary demand originally was for human consumption; but the importance of the product as a foodstuff for animals has increased constantly. In the United States, the latter object absorbs the greater bulk of the crops, and it is possible that in the future a similar development may take place in South Africa. As regards the manufacture of maize products, a beginning has been made in the Union, but the country still imports annually about 1,000,000 lb. of corn flour and Maizena.

9. **Production and Export of Maize.**—A series of tables giving particulars of the production, marketing, export, and price of maize will be found below. Some maize is grown in every district of the Union, but the important area of production lies roughly east of a line drawn between East London and Mafeking. In this area the native territories, though of great importance, do not produce maize on the scale of the northern Orange Free State and the southern Transvaal. Besides this, they export little, any surplus they have being put into their pits against a bad harvest. Even Basutoland exports only 50,000 tons a year. A fairly clearly defined area emerges as the chief producing region. This contains the districts of Bethlehem, Ficksburg, Frankfort, Harrismith, Heilbron, Hoopstad, Kroonstad, Ladybrand, Lindley, Senekal, Thaba 'Nchu, Vrede, Vredefort, and Winburg in the Orange Free State, and Benoni, Bethal, Bloemhof, Boksburg, Germiston, Heidelberg, Johannesburg, Krugersdorp, Lichtenburg, Middelburg, Potchefstroom, Pretoria, Standerton, and Wolmaransstad in the Transvaal, and a portion of Bloemfontein and Rustenburg to round the area off. The area of most intensive production is a triangle having Ladybrand, Lichtenburg, and Bethal as the vertices and its centre at Heilbron. This "maize triangle," as will be seen on the map illustrating this paragraph, contains thirty out of the thirty-two country grain elevators assigned to the maize district. The remaining two, at Middelburg and Pienaars River, are in the larger defined area.

Further details of the maize production of the Union, as well as of the export trade in maize, the system of marketing, the course of wholesale prices of that cereal and its derivative and allied products, and the cost of production, were given in the fuller survey included in the fifth issue of this Year Book.

10. **Grain Elevators.**—A great change in the system of marketing of maize has followed the institution of a national service of grain elevators. The question of the construction of grain elevators, debated since 1911, has at last become an actuality. In January, 1918, the Government appointed a committee of nine members, under the chairmanship of Mr.

G. C. S. Clarke, C.M.G., V.D., of the Railways and Harbours Administration, to investigate the question of the desirability and practicability of the establishment of the system in the Union. The Committee, after a comprehensive inquiry, presented its report in July, 1918, and unreservedly recommended the adoption of the system as a State enterprise under the immediate control of the Railways and Harbours Administration. In a report introducing the findings of the Committee, the General Manager of Railways and Harbours endorsed the views of the latter. The Committee formulated detailed proposals for the construction of a number of elevators at selected ports and inland centres and laid down the lines on which the system should be operated.

The Government, after consideration, accepted the principle of bulk handling, and decided to erect elevators at points to be determined later. Steps were also taken to secure the services of a consulting engineer to advise generally with regard to the matter. The recommendations of this gentleman (Mr. Littlejohn Philip), which substantiated those of the Committee, were contained in a report issued in May, 1920, and were accepted by the Government, although the programme of construction contemplated therein was subsequently modified owing to financial exigencies.

The construction of the terminal elevators at Durban and Cape Town was begun early in 1921. The Cape Town port elevator and thirty-four country elevators were completed in 1924 in time for the handling of a portion of the maize crop for that year. However, the opening season was unfortunately a bad one, owing to drought conditions; consequently the system only handled the comparatively small quantity of 80,000 tons, 45,900 tons of which were exported through the Cape Town elevator and the balance disposed of for local consumption. Owing to the difficulties with the foundations, it was not expected that the Durban port elevator would be completed until towards the end of 1925, or in the early months of 1926; meanwhile arrangements were made for handling maize in bulk by means of temporary appliances at Maydon Wharf. The following is a list showing the location and capacity of the elevators:—

GRAIN ELEVATOR SYSTEM.

Station.	Storage Capacity.	Station.	Storage Capacity.	Station.	Storage Capacity.
Port Terminal Elevators.	Tons.		Tons.		Tons.
Durban	42,000	Kinross	4,000	Moorreesburg	2,600
Cape Town	30,000	Senekal	4,000	Potchefstroom	2,600
		Rendezvous	4,000	Leslie	2,600
Country Elevators.		Lindley Road	4,000	Pienaars River	2,200
		Balfour	3,000	Ventersburg Road	1,800
Frankfort	5,800	Clocolan	3,000	Kaallaagte	1,800
Heilbron	5,800	Ventersdorp	3,000	Koster	1,800
Klerksdorp	5,800	Vermaas	3,000	Leeuwdoorns	1,800
Reitz	5,800	Vrede	3,000	Maquassi	1,800
Bethal	4,800	Coligny	2,600	Val	1,800
Bethlehem	4,800	Ficksburg	2,600	Westminster	1,800
Kroonstad	4,800	Middelburg (T.)	2,600	Davel	1,800
Bothaville	4,000	Makokskraal	2,600	Standerton	1,800

This system will afford an aggregate storage accommodation of 72,000 tons at the port elevators and 109,200 tons at the country elevators, or a grand total storage capacity of 181,200 tons. It is estimated that the total cost of these elevators will be over £2,500,000.

The elevator system may be briefly described as follows:—

Country elevators are established at the principal dispatching stations in the grain belts, and large *terminal* elevators at the ports. The farmer will bring his grain to the country elevator either loose in a box cart or in bags (whichever method he prefers). From his wagon the grain is tipped loose into the receiving hopper of the elevator, whence it is mechanically transferred to the elevator storage bins, being cleaned, weighed, and graded before deposit in the latter. Separate bins are provided for each different grade; but grain of the same grade belonging to different owners is merged in the same bin, its individual identity thus being lost. From the storage bins the grain is spouted loose into special railway box-trucks and conveyed either to another inland elevator or to the port, where it is mechanically transferred from railway trucks to the port elevator storage bins. From these bins the grain is spouted into the ship's hold and conveyed loose in the ship to the European port. All the principal European ports are equipped with elevators for taking grain mechanically from the ship's hold into storage bins. It will be seen that under the elevator system the grain flows in a stream. Mechanical power raises it to any required height at a minimum cost. To drop the grain from the elevator bins into railway trucks or ships, the force of gravity suffices.

The elevators will be controlled and operated by the Railways and Harbours Administration. The functions of the elevator system will be confined to grading, weighing, cleaning, storing, and handling the grain. The elevator authorities will not buy or sell grain. When the farmer deposits his grain in the elevator, he receives in exchange a transferable elevator receipt on which is inscribed the weight, description, and grade of the

grain. The elevator authorities absolutely insure the grain against all losses of whatsoever description whilst in the elevator system, and undertake (without any reservation) to deliver, on presentation of the elevator receipt, the exact weight and grade inscribed thereon. A deduction of 1 per cent. to cover wastage and loss of weight is made at the time the grain is placed in the elevator system. The elevator receipts are recognized by the banks as first-class security, on which they advance loans. Buying and selling of grain under the elevator system is done entirely through the medium of the elevator receipts. An essential principle of the elevator system is that all maize of the same grade is pooled. This pooling system renders possible considerable economies in handling and transport. In the commercial sense, the elevator system is really a grain bank : the farmer puts his grain into the elevator and secures a receipt. This receipt may be presented at any elevator in the country, and will ensure immediate delivery of the weight and grade shown on the receipt, subject, of course, to payment of any charges due, including cost of rail transport.

Bulletin No. 60, published by the Railway Administration in August, 1923, gives a comprehensive description of the elevator system, as well as information in regard to the proposed tariffs and regulations, etc.

In the early stages of the elevator system the full advantages of the system will not be gained, as a considerable portion of the local consumption grain trade of South Africa will continue to be handled in bags, owing to the fact that the present farm operations, milling methods and transport are based on the bag system, and it will take time before farmers and millers adapt their methods to the bulk system. A start in this direction has already been made by certain farmers and millers, and it is only a question of time before the new methods are more widely adopted.

11. **Grading of Maize.**—Maize and maize meal are graded as follows :—

MAIZE.

Grade Mark to be shown on bags.	Class.	Description.
1	Flat White No. 1.....	To be sound, dry, plump, and well cleaned, with a maximum of 1 per cent. of yellow, discoloured, and defective grain.
2	Flat White No. 2.....	To be sound, dry, and reasonably clean, and contain not more than 8 per cent. defective or other coloured grain, or both. Berries may be of irregular size.
3	Flat White No. 3.....	To be sound, dry, and reasonably clean, and contain not more than 13 per cent. of defective or other coloured grain, or both. Berries may be of irregular size and shape.
4	Flat Yellow.....	To be sound, dry, and reasonably clean, and contain not more than 9 per cent. of defective or other coloured grain, or both. Berries may be of irregular size and shape.
5	Round White.....	To be sound, dry, and reasonably clean, and contain not more than 9 per cent. of defective or other coloured grain, or both. Berries may be of irregular size.
6	Round Yellow.....	To be sound, dry, and reasonably clean, and contain not more than 9 per cent. of defective or other coloured grain, or both. Berries may be of irregular size.
7	Mixed.....	To be sound, dry, and reasonably clean, and contain not more than 10 per cent. of defective grain.
8	No grade.....	To include all maize which cannot be classed in a higher grade, but to be in dry condition and fit for shipment.

MAIZE MEAL.

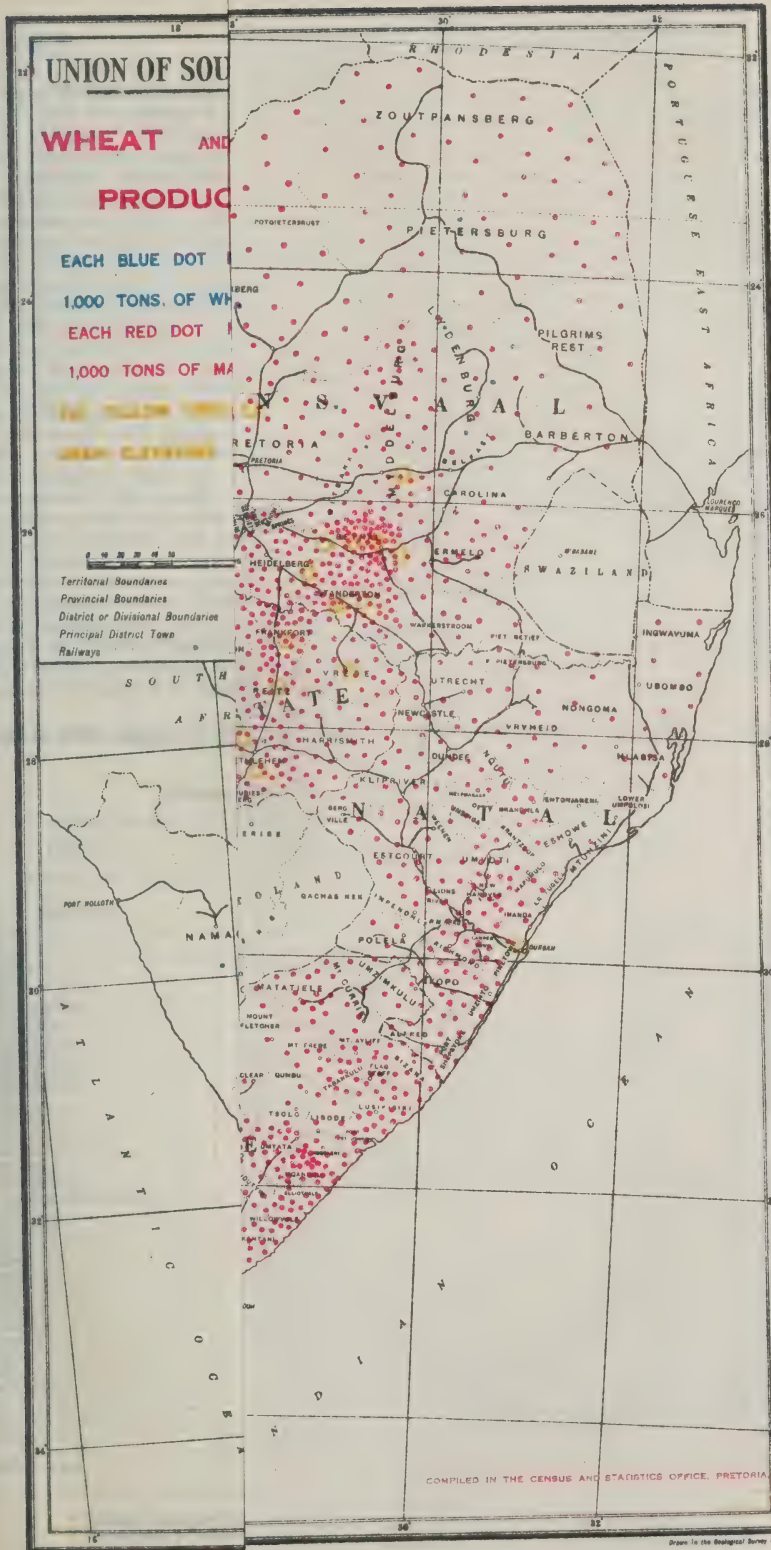
M. 1	White Maize Flour	To be milled from South African grown white maize Government standard maize, grades Nos. 1 and 2.
M. 2	Granulated White Maize Meal	To be milled from South African grown white maize, Government standard maize, grades Nos. 1, 2, and 5.
M. 3	Ordinary Straight Milled White Maize Meal	To be milled from South African grown white maize, Government standard maize, grades Nos. 1, 2, 3, and 5 (mesh 18 to 32).
M. 4	Ordinary Straight Milled Yellow Maize Meal	To be milled from South African grown yellow maize, Government standard maize, grades Nos. 4 and 6 (mesh 18 to 32).
M. 5	Mixed Maize Meal	To be milled from South African grown white maize and yellow maize, Government standard maize, grades Nos. 1 to 7 (mesh 18 to 32).

The proportions of the different grades exported for four years 1915–16 to 1918–19 were : No. 1, 0·60 per cent. ; No. 2, 36·84 per cent. ; No. 3, 5·14 per cent. ; No. 4, 11·03 per cent. ; No. 5, 1·33 per cent. ; No. 6, 34·86 per cent. ; No. 7, 2·76 per cent. and No. 8, 7·44 per cent. It will be seen that almost three-fourths of the exports consisted of Flat White No. 2 and Round Yellow.

12. **Maize Yield and Elevator Operations, 1925.**—The maize crop of the Union in 1925 constituted a record; the total production, arrived at from the final results of the agricultural census, was 24,295,580 bags, equivalent to approximately 2,429,558 short tons

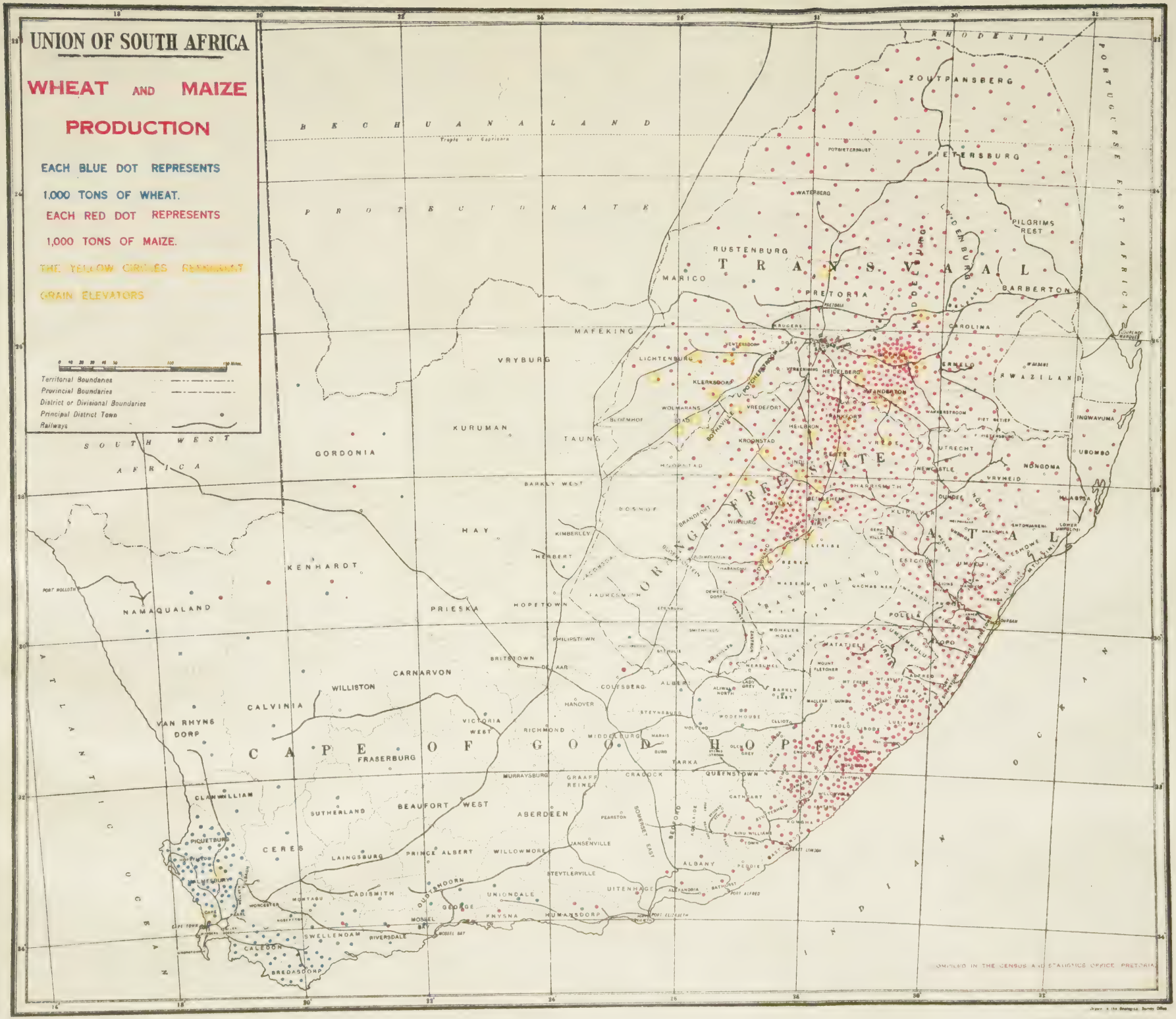
The elevator system was therefore subjected to a severe test, and in so far as the general working was concerned proved a distinct success. Between the 1st July and the 28th November, 1925, 470,000 tons passed through the system, 357,442 tons for export and 7,552 for local delivery.* Of the tonnage exported, 244,620 passed through the Cape Town elevator and 112,822 through the temporary appliances at Durban.

* At the 2nd January, 1926, the quantity shipped had reached the total of 398,448 tons, and delivered locally 9,545 tons.



Drawn in the Geological Survey Office.

Make photographed at the Government Printing Works, Pretoria


UNION OF SOUTH AFRICA
WHEAT AND MAIZE
PRODUCTION
EACH BLUE DOT REPRESENTS
1,000 TONS OF WHEAT.
EACH RED DOT REPRESENTS
1,000 TONS OF MAIZE.
THE YELLOW CIRCLES REPRESENT
GRAIN ELEVATORS
Territorial Boundaries
Provincial Boundaries
District or Divisional Boundaries
Principal District Town
Railways
BECHUANALAND
PROTECTORATE
SOUTH WEST AFRICA
RHODESIA
PORTUGUESE EAST AFRICA
ATLANTIC OCEAN
INDIAN OCEAN
ZOUTPANSBERG
PIETERSBURG
POTGIETERSRUST
WATERBERG
PILGRIMS REST
RUSTENBURG
MARICO
TRANSVAAL
PRETORIA
BARBERTON
MAFEKING
CAROLINA
VRYBURG
LICHTENBURG
KLERKSDORP
HEIDELBERG
STANDERTON
WOLMARANS STAD
VREDEFORT
FRANKFORT
BLOEMHOF
HEILBRON
KURUMAN
TAUNG
KRONSTAD
VREDE
UTRECHT
NEWCASTLE
SWAZILAND
INGWAVUMA
UBOMBO
NONGOMA
VRYHEID
GORDONIA
BARKLY WEST
BOSHOF
HAY
KIMBERLEY
WINBURG
DUNDEE
LADYSMITH
ESTCOURT
KENHARDT
HERBERT
BEREA
MASERU
BASUTOLAND
NATAL
NAMAQUALAND
PRIESKA
HOPETOWN
PHILIPSTOWN
MATATIELE
POLELE
BRITSTOWN
CARNARVON
WILLISTON
CALVINIA
COLESBERG
ALBERT
HANOVER
VAN RHYNS DORP
VICTORIA WEST
RICHMOND
MIDDELBURG
CAPE OF GOOD HOPE
FRASERBURG
TARKA
QUEENSTOWN
MURRAYSBURG
GRAAFF REINET
CRADOCK
CLANWILLIAM
SUTHERLAND
BEAUFORT WEST
ABERDEEN
CATHCART
PICQUETBURG
CERES
LAINGSBURG
PRINCE ALBERT
WILLOWMORE
JANSENVILLE
ALBANY
STEYTLERVILLE
UITENHAGE
LADISMITH
OUDTSHOORN
UNIONDALE
GEORGE
KNYSNA
HUMANSDORP
MOSSEL BAY
SWELLENDAM
RIVERSDALE
CALEDON
BREDASDORP
COMPILED IN THE CENSUS AND STATISTICS OFFICE PRETORIA

Owing to the late rains the general crop was about six weeks later than usual, and it was well into the middle of August before the grain was sufficiently dry for acceptance into the elevators. The handling of over 4½ million bags was accomplished in about three months, making an average of 1½ million bags per month handled, which must be regarded as a remarkable achievement.

The elevator system has proved to be a great boon to maize producers owing to the enormous saving in the cost of grain bags, which were very expensive during the 1925 season. The average cost of a new grain bag to the farmer amounted to 1s. 6d., so that the bulk handling of 4½ million bags of grain through the elevators represented a saving of £337,500. A large proportion of this amount constituted a direct saving to the maize producers.

The farmer who did not use the elevator system suffered a disadvantage, for the reason that in selling his grain in bags he only received about one-third of the cost of the empty bag, as the average market price of maize in bags varied only from 3d. to 6d. per bag more than maize in bulk (200 lb. net) *ex* elevators.

The elevator system also proved of inestimable value to farmers and traders in disposing of their grain by means of the negotiable elevator receipt, which carries a guarantee of official weight and grade and thus eliminates disputes between buyers and sellers.

The experience gained during this season clearly indicated the need for extending the elevator system to meet the expanding maize industry of the country, and consideration is being given to the question of constructing additional country elevators. In the meantime provision has been made for the erection of one small elevator of a new design, and this will act as a guide in any further construction programme which may be decided upon.

The experiment of employing white youths in preference to natives for the unskilled work in the elevators has proved an unqualified success. This work affords a new avenue of employment for the youths of the country districts where elevators are located.

The machinery of the country elevators and the Cape Town port elevator has worked well, and no serious breakdowns have occurred since the inauguration of the system.

The following tables (i) to (vi) give information concerning the production, export, sales, and prices of maize and maize products over a series of years:—

(i) YIELD PER ACRE IN THE PRINCIPAL MAIZE GROWING DISTRICTS, 1918 AND 1920 TO 1924.

[EUROPEAN PRODUCTION ONLY IN BAGS OF 200 lb.]

District.	1918.	1920.	1921.	1922.	1923.	1924.
Transvaal.						
Benoni	1·45	1·73	1·88	1·54	3·12	1·62
Bethal	1·79	2·74	4·32	2·44	4·02	3·38
Bloemhof	2·68	2·05	1·55	0·58	0·80	0·13
Boksburg*	2·50	2·14	3·83	3·26	4·40	5·18
Germiston	1·72	2·95	3·44	2·87	2·69	2·26
Heidelberg (T.)	1·70	1·57	2·77	2·17	3·21	2·24
Johannesburg	3·11	2·57	3·12	2·64	3·42	4·90
Krugersdorp	2·30	1·85	2·00	2·18	2·40	1·50
Lichtenburg	2·65	2·48	2·00	1·14	1·26	0·68
Middelburg (T.)	1·66	2·35	3·96	2·06	2·40	2·52
Potchefstroom‡	2·70	2·25	1·92	1·89	2·61	0·83
Pretoria	2·01	1·88	2·23	1·59	2·85	2·34
Rustenburg	3·00	1·55	2·15	1·61	2·66	1·27
Springs	†	†	2·32	2·81	3·00	2·31
Standerton	1·80	2·03	3·20	2·04	3·96	3·10
Ventersdorp	§	§	§	§	§	1·15
Wolmaransstad	2·57	2·34	1·57	1·06	1·36	0·28
Orange Free State.						
Bethlehem	1·88	2·48	2·59	1·91	3·01	1·86
Bloemfontein	1·67	1·08	1·18	0·41	3·36	0·40
Ficksburg	2·54	2·16	2·42	1·88	3·75	2·25
Frankfort	1·63	2·18	2·79	1·91	3·02	2·27
Harrismith	1·34	1·86	2·23	1·70	2·52	1·54
Heilbron	1·83	2·08	2·41	1·77	3·13	1·51
Hoopstad	2·49	1·51	1·53	1·30	1·84	0·31
Kroonstad	3·04	2·42	2·31	2·23	3·57	0·81
Ladybrand	2·23	2·14	1·84	1·63	4·46	1·54
Lindley	1·98	2·67	2·68	1·85	3·16	1·72
Senekal	2·91	2·61	1·80	2·04	3·62	2·51
Thaba 'Nchu	1·88	2·07	1·87	1·25	5·23	1·53
Vrede	1·31	1·97	2·45	1·97	2·75	1·86
Vredefort	2·96	2·08	1·80	1·97	3·52	1·19
Winburg	2·66	2·06	1·30	2·04	3·31	1·40
Maize Area	2·2	2·2	2·5	1·8	3·1	1·8

* Springs included 1911–1920. † Included with Boksburg.
‡ Ventersdorp included 1911–1923. § Included with Potchefstroom.

(ii) EXPORT OF MAIZE AND MAIZE MEAL FROM THE UNION THROUGH VARIOUS PORTS,* 1918 TO 1924.

(*a*) MAIZE.

Year.	Cape Town.	Port Elizabeth.	East London.	Durban.	Other Union Ports.	Delagoa Bay.	Total.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
1918..	876,868	325,233	467,636	755,434	33,758	88,550	2,547,479
1919..	420,758	212,833	146,900	438,666	906	11,263	1,231,326
1920..	90,567	114,426	44,871	95,159	2,831	524	348,378
1921..	644,490	530,585	542,467	2,088,927	3,711	76,050	3,886,230
1922..	728,114	25,649	1,520	1,853,367	7,260	104,990	2,720,900
1923..	1,342,370	306,238	734,563	3,252,133	501	5,766	5,641,571
1924..	**219,950**	—	**19,433**	**477,301**	—	**2,799**	719,483

(*b*) MAIZE MEAL.

Year.	Cape Town.	Port Elizabeth.	East London.	Durban.	Other Union Ports.	Delagoa Bay.	Total.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
1918..	245,033	—	45,758	456,621	9,777	78,387	835,576
1919..	443,992	80,965	168,352	1,069,883	6,118	70,069	1,839,379
1920..	127,223	41,052	86,983	133,036	5,121	12,070	405,485
1921..	259,401	264,814	108,993	422,759	7,925	25,311	1,089,203
1922..	176,742	7,982	5,753	294,300	64	45,329	530,170
1923..	67,958	488	40,404	286,078	15	10,969	405,912
1924..	135,964	—	2	431,964	16	3,808	571,754

*Excluding exports to Rhodesia and from 1922 to South-West Africa. See tables (iii) and (iv) below.

(iii) EXPORT OF MAIZE FROM THE UNION ACCORDING TO COUNTRIES OF DESTINATION, 1912 TO 1924.

Destination.	1912.	1913.	1920.	1921.	1922.	1923.	1924.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom...	193,941	24,760	148,358	2,635,428	1,503,562	3,319,649	464,605
Ceylon.....	—	—	—	—	—	—	—
Australia.....	242,319	50,002	30,477	1,536	257,805	799,795	24,676
New Zealand.....	3	1	1,137	1,000	2,500	1,239	—
Kenya (B.E.A.)....	1	1	—	24	—	32	10
Egypt.....	—	1	—	5,374	—	—	—
Belgium.....	204,787	8,579	13,045	171,196	124,420	247,723	10,788
Denmark.....	—	—	—	—	—	26,533	—
Belgian Congo.....	10,574	6,883	—	—	300	1	—
Mauritius.....	—	—	1,286	25,887	5,613	4,822	556
St. Helena.....	152	95	789	668	873	918	917
France.....	—	—	—	23,212	16,875	255,491	47,750
Other French Possessions.....	5	—	—	62,817	—	—	—
Germany.....	204,861	10,802	108,304	600,357	431,883	257,325	70,747
S.W. Africa.....	3,127	5,826	4,715	4,466	4,881	4,106	8,798
Holland.....	—	—	38,538	195,710	154,144	636,805	81,202
Italy.....	—	—	—	300	18,700	55,040	—
Portugal.....	—	—	—	43,492	27,122	—	—
P. E. Africa.....	76,122	7,764	1,524	52,358	97,827	6,266	2,799
Madeira.....	1,770	—	—	32,031	19,276	29,912	15,372
Spain.....	—	—	—	29,164	60,000	—	—
Canary Islands.....	24,843	1	—	700	—	—	—
Other Countries....	1,374	9	205	510	—	20	61
TOTAL.. .. .	963,879	114,724	348,378	3,886,230	2,725,781	5,645,677	728,281
Rhodesia.....	111,690	66,201	3,792	5,139	21,708	5,265	6,277
GRAND TOTAL....	1,075,569	180,925	352,170	3,891,369	2,747,489	5,650,942	734,558

(iv) EXPORT OF MAIZE PRODUCTS FROM THE UNION, ACCORDING TO COUNTRIES OF DESTINATION, 1912 TO 1924.

(*a*) MAIZE MEAL.

Destination.	1912.	1913.	1920.	1921.	1922.	1923.	1924.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom...	—	1,506	347,572	1,039,801	483,392	392,724	567,805
Straits Settlements.	—	—	11,143	—	—	—	—
S.W. Africa.....	600	199	32,743	14,992	30,793	24,961	29,596
Belgium.....	—	—	—	3,359	—	—	—
Germany.....	—	—	1,446	3,068	120	2,124	11
P. E. Africa.....	53,468	21,770	12,070	25,312	45,329	10,969	3,811
U.S.A.....	—	—	—	1,968	—	—	—
Other Countries....	688	9	511	703	1,329	95	127
TOTAL.....	54,656	23,484	405,485	1,089,203	560,963	430,873	601,350
Rhodesia.....	70	948	642	2,014	5,507	3,264	170
GRAND TOTAL....	54,726	24,432	406,127	1,091,217	566,470	434,137	601,520

(*b*) SAMP.

Destination.	1912.	1913.	1920.	1921.	1922.	1923.	1924.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom...	—	—	—	480	6,937	—	2,809
St. Helena.....	—	—	548	338	238	57	18
Mauritius.....	1	—	18	9	39	7	—
S.W. Africa.....	1,031	1,683	7,929	1,264	3,245	2,615	4,305
Germany.....	—	1	—	7	2	14	—
P. E. Africa.....	2	1	2	82	27	—	9
Other Countries....	—	—	—	2	—	—	—
Rhodesia.....	48	6	23	29	5	1	—
TOTAL.....	1,082	1,691	8,520	2,211	10,493	2,694	7,141

(*c*) HOMINY CHOP.

Destination.	1912.	1913.	1920.	1921.	1922.	1923.	1924.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom...	8,201	2,404	43,691	25,266	31,744	43,748	40,054
Mauritius.....	—	—	151	414	42	122	314
Germany.....	32,124	16,127	—	—	6,046	8,697	6,770
St. Helena.....	—	—	—	—	—	3	—
TOTAL.....	40,325	18,531	43,842	25,680	37,832	52,570	47,138

(*d*) CORN FLOUR AND MAIZENA.

Destination.	1912.	1913.	1920.	1921.	1922.	1923.	1924.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom...	—	—	—	—	—	—	—
Kenya (B.E.A.)....	—	—	—	36	—	—	—
Mauritius.....	—	—	—	—	—	—	—
S.W. Africa.....	—	—	259	40	470	486	425
P. E. Africa.....	—	—	—	600	36	65	40
Other Countries....	169	—	20	64	80	—	—
Rhodesia.....	—	—	180	240	170	200	—
TOTAL.....	169	—	459	980	756	751	465

(v) JOHANNESBURG MUNICIPAL MARKET—SALES OF MAIZE AND MAIZE MEAL, 30th JUNE, 1919, TO 1925.

Period.	Maize.	Crushed Maize.	Maize Meal.
	200-lb. Bag.	180-lb. Bag.	180-lb. Bag.
Year ended 30th June, 1919...	269,273	2,598	10,188
Year ended 30th June, 1920...	117,567	2,088	5,657
Year ended 30th June, 1921...	210,956	601	2,460
Year ended 30th June, 1922...	136,485	394	1,012
Year ended 30th June, 1923...	101,822	474	4,728
Year ended 30th June, 1924...	48,330	131	773
Year ended 30th June, 1925...	71,511	145	1,336

(vi) WHOLESALE PRICES OF MAIZE AND MAIZE MEAL, 1910 TO JULY, 1925.

Year.	Maize (200-lb. Bags).				Maize Meal. (180 lb.).
	Flat White.	Round White.	Flat and Round Yellow.	Mixed.	
	s. d.	s. d.	s. d.	s. d.	s. d.
1910.....	10 7	9 5	12 6	10 6	12 7·2
1911.....	7 11	7 1	8 5	6 4	12 7·2
1912.....	9 8	7 7	11 2	9 0	13 6
1913.....	17 3·2	12 10·4	16 8·4	14 9	19 0·6
1914.....	12 3	11 3·8	12 5·5	11 6·8	13 1·23
1915.....	12 6·8	11 10·5	13 3·6	12 5·3	13 5·01
1916.....	14 11·3	13 10·5	14 10·5	13 8·3	14 9·84
1917.....	16 0·8	14 11·3	14 9·8	12 10·6	16 6·27
1918.....	15 11	15 0·8	14 6·1	11 10·8	17 4·17
1919.....	18 1·4	17 3·16	17 7·66	15 8·96	18 6·89
1920.....	28 0·02	25 10·2	27 1·34	24 9·6	28 1·32
1921.....	13 0·4	11 5·74	13 4·04	11 5	14 11·82
1922.....	13 0·76	12 2·8	12 11·16	11 9·56	14 1·88
1923.....	16 0·76	14 7	14 0·86	13 1·88	16 9·06
1924.....	16 10·7	15 8·88	15 9·86	14 3·56	17 4·75
1925—January.....	17 4·5	16 0·26	16 7·64	15 10·50	18 0·43
April.....	17 4·14*	—	16 7·50†	—	18 4·84
July.....	14 3·50*	—	14 1·50†	—	14 11·24

* From April, 1925, No. 2 flat white.
† From April, 1925, No. 6 round yellow.

§ 4. Fodder Crops and Ensilage.

1. **General Statistics.**—The production in the Union of lucerne and other forage crops is indicated in the following table :—

LUCERNE, TEFF, CULTIVATED GRASSES, MANNA, AND ENSILAGE, 1917–18 TO 1923–24.*

Province.	Lucerne.		Teff.		Manna.			Cultivated Grasses.	Ensilage
	Area.	Yield.	Area.	Yield.	Area.	Yield. (Grain).	Cut for Forage.	Area.	Quantity.
	Acres.	1,000 lb.	Acres.	1,000 lb.	Acres.	1,000 lb.	1,000 lb.	Acres.	1,000 lb.
Cape	122,937	140,524	5,979	9,012	4,686	468	6,078	7,645	38,498
Natal	2,064	7,698	12,140	19,826	2,083	61	3,576	9,101	69,132
Transvaal	7,947	21,964	192,769	238,638	15,740	939	26,517	7,937	40,170
O.F.S.	9,164	16,320	49,611	83,272	44,347	1,107	36,332	8,146	30,494
TOTAL, 1920–21	142,112	186,506†	260,499	350,748	66,856	2,575	72,503	32,829	178,294
Census—1917–18	119,585	700,082‡	234,343	412,742	24,222§	5,504	‖	‖	102,854
1920–21	142,112	186,506†	260,499	350,748	66,856	2,575	72,503	32,829	178,294
1921–22	‖	‖	‖	‖	80,409	1,602	62,941	‖	‖
1922–23	‖	‖	‖	‖	65,022	2,718	58,637	‖	‖
1923–24	193,352	1,755¶	‖	‖	78,598	3,586	42,210	‖	‖

* Not enumerated in Native Locations, Reserves, etc., in 1918, 1921, 1922, 1923, and 1924.
† Dry. ‡ Green. § For grain only. ‖ Not available. ¶ Lucerne seed.

2. **Lucerne** (*Medicago sativa*) **and Other Forage Crops.**—Lucerne is the best of forage crops. It is a hardy perennial of rapid luxuriant growth under favourable conditions, highly nutritious for live stock, and beneficial to the soil, which it enriches in its nitrogen-content.

Adaptations.—Lucerne is grown practically throughout the Union, but as a crop of any importance it is found mostly in the arid and semi-arid areas where irrigation is practised. Responding as it does to large applications of water and deep soils, plentifully supplied with lime, it is but natural that this crop should be the one of greatest importance on our rich alluvial soils. On practically every farm in the semi-arid region known as the Karroo is to found a field of lucerne, the size of which will depend upon the irrigable land available. There are one or two districts, however, where the growing of lucerne has assumed considerable importance. Oudtshoorn is without doubt the premier area from the point of view of production of hay, but more especially as a producer of lucerne seed. The District of Graaff-Reinet is also recognized as one of the most important lucerne-growing regions.

Varieties.—Adaptation is, however, closely related to variety, for one sort will thrive where others will fail. Generally speaking, all varieties thrive in the semi-arid regions when they are grown under irrigation. The variety known as *Arabian*, a hairy sort having an upright growth, is an exception, as it is very short-lived under all conditions ; furthermore, it produces a hay of inferior quality. The variety known as *Provence* is grown more extensively than any other, and is undoubtedly one of the most useful sorts in the lucerne area proper. While the *Hunter's River* (or *Tamworth*) variety is useful under semi-arid conditions, it would appear to be capable of thriving to much better advantage under humid conditions with sour soils than *Provence*. A new variety, to which the name *Chinese Lucerne* has been given, was obtained by the Department of Agriculture from the United States whither it had been brought from the borders of Thibet by Dr. David Fairchild, of the United States of America Department of Agriculture, and gives much promise of proving to be the best all-round variety of lucerne. At the Grootfontein School of Agriculture it has in experiments proved a wonderful grower. Moreover, it seems extremely frost-hardy, beginning to show growth fully a month earlier than other varieties and continuing its growth fully a month longer. It thus gives one or two cuttings more per season than other varieties. In addition, it may be stated that it has also been successful in humid areas. Farmers who have obtained seed from the institution seem generally to be satisfied.

Lucerne, however, makes a large demand on the soil for lime and phosphates, and in a number of South African soils these constituents are deficient. More particularly it is indispensable that the supply of lime should be abundant, and it is fortunate that the extensive lime deposits in the Union enable it to be obtained cheaply. The type of soil

best suited to lucerne is a deep loam. There is a large extent of this soil capable of being irrigated in the Union, especially along the numerous small rivers throughout the country. The development of irrigation in the Union, together with the expansion of the live stock industry in recent years, has very rapidly advanced the cultivation of lucerne. Hitherto a great deal of lucerne hay has been baled on farms and dispatched to market for sale, but the practice of consuming the crop on the farm and marketing the meat or dairy product is becoming more general. The principal impetus to lucerne growing was due to the rise of the ostrich feather industry; more recently the advance of the pig industry has had a similar effect. These industries have been built upon the depasturing of lucerne. Lucerne as hay is likely to become the most important supplement to veld grazing in the development of the beef export trade, and in the milk, butter and cheese industry it is being used to an increasing extent and with great success. The yield of hay in the Union ranges from 4 to 8 tons per acre per season. The Union is equally well suited to the production of lucerne seed; the climatic conditions necessary for this are ideal—a hot and for the most part dry and calm ripening season.

In the form of meal, lucerne is especially a valuable addition to the mash fed to poultry, in which it can be used to replace some of the more expensive constituents. A fair demand for lucerne in this form has arisen in European countries and another market thus created for this product of South African agriculture. Lucerne mills are being erected in various parts of the country.

Area of Land under Lucerne.—The following tables illustrate (i) the actual and (ii) some potential lucerne growing areas in the Union:—

(i) **AREA UNDER LUCERNE, 1920-21, BY PROVINCES.**

Province.	Area in Acres.	Yield in Pounds.
Cape	122,937	140,524,000
Natal	2,064	7,698,000
Transvaal	7,947	21,964,000
Orange Free State	9,164	16,320,000
TOTALS	142,112	186,506,000

Total Acreage in 1917–18 .. 119,585.

(ii) **AREA OF LAND UNDER VARIOUS MAJOR IRRIGATION SCHEMES, 1923.**

Project.	*Area Rated (Acres).*
Hartebeestpoort	40,000
Lake Mentz	38,000
Kamanassie	27,000
Van Ryneveld Pass	22,000
Grass Ridge	20,000
Tarka	35,000
Kaffir River	4,800
Bon Accord	1,395
TOTAL	188,195

It is estimated that of the nearly 200,000 acres that will soon be under irrigation projects, some 100,000 acres will be established to lucerne.

3. **Teff** (*Eragrostis Abyssinica*).—This is a grass that has been introduced from Abyssinia. It is a summer annual, very leafy plant, characterized by its resistance to drought, its earliness, and the excellence of the hay that is produced when the crop is cut at the right time. Under favourable conditions the grass will attain a height of four feet and will be ready for cutting in some six to eight weeks after sowing. Frequently a second cutting may be obtained in the season, while, where the season is long enough, a considerable amount of aftermath may be available for grazing following the removal of the second hay crop.

Teff is adapted to the lighter types of soils, particularly sandy loams. Very rich soils are not so well suited to the crop, as the plants tend to grow luxuriantly and lodge owing to the very fine stem. Areas of very high rainfall are not well adapted to teff and good hay cannot be made under such conditions. The most suitable areas for teff are the Transvaal high veld, the Eastern Province of the Cape, the North-Eastern Free State, and the Uplands of Natal.

Teff is a useful crop for rotation in the maize belt, but as both teff and maize are liable to be attacked by the *Rooi Blom* (Witch Weed), it is advisable that the two should not be grown continuously in succession. It is one of the most palatable of hays and is readily eaten by all classes of stock. Compared to other grasses, it is high in protein, having a nutritive ratio of about 1 : 6 or 7. The yield per acre under favourable conditions may be as high as three or four tons, although an average of about two tons should be expected. The cost of production varies from 8s. to 12s. per ton or £1 per ton when baled, and the value on the market is from £2. 10s. to as high as £5 per ton.

To be successful with teff it is necessary that the seed bed be carefully prepared as the seed is extremely fine. Seed should be broadcasted at the rate of five to seven pounds per acre and then very lightly harrowed in. The sowing may take place from the beginning of October to the end of January. In making hay care should be taken to cut the crop before the seed is formed; in other words, just about the time when the plants come into flower. The quality of the hay becomes inferior as the crops pass towards maturity.

4. **Agricultural Grasses.**—Various attempts have been made to improve the grazing in this country by the introduction of so-called artificial grasses. Some of these grasses have proved a success, but there are very few areas where grasses are cultivated to any extent. Most of our indigenous grasses are characterized by summer growth only, except in those areas where the winters are mild and where a fair amount of rain falls in the winter. Under irrigation grasses must be in a position to compete with lucerne, but as there are few grasses that can give the same quantity of nutritious hay under irrigation as lucerne, very little grass cultivation is practised on irrigated lands, and those that are cultivated are usually the winter-growing varieties that will provide grazing during the time when lucerne is making little growth. As a general rule, it may be taken that cultivated grasses require fairly good soil and a fair amount of moisture.

As a result of experience with numbers of grasses, it may be said that in the warmer areas, with mild winters, the best grasses are *Kikuyu*, *Natal Grass*, *Napier Fodder*, and *Rhodes Grass*. These are all palatable grasses that will remain permanently green in areas where little or no frost is experienced and where the rain is fairly well distributed throughout the year. Under irrigation the grasses that will be found most useful are the winter-growing sorts, of which the best are *New Zealand Tall Fescue*, *Phalaris Bulbosa*, *Tall Oat*, *Cocksfoot*, and the *Rye* grasses. These varieties should also be useful in the winter-rainfall areas. A grass that spreads rapidly in areas of fairly high rainfall and thrives in moist low-lying spots is *Paspalum*. This grass is to be found growing extensively in the more moist parts of the Union, but the objection to *Paspalum* is the tendency for the seed heads to become ergotized. Ergot, of course, is dangerous to stock.

At the Government Experiment Station at Bathurst, the summer grasses enumerated above give every promise of being the means of improving very considerably the grazing in that area.

5. **Spineless Cactus.**—*American Aloe and Salt Bush.*—The best means of reducing stock losses during periods of drought is by conserving fodder during the times of plenty for use during the lean years. In some areas so little water is available for growing cultivated crops that the drought problem is a most difficult one. Fortunately there are certain drought-hardy plants that will thrive even during the most protracted droughts. Such drought-hardy plants are the cactus group, the American aloe, and the varieties of salt bush. Not only do these plants withstand drought, but they will thrive on most soils, while the salt bush flourishes on land too brak for ordinary crops. In addition these plants remain green and succulent in the winter and in long protracted droughts, with the result that they can be made to furnish a very essential part of the animal's diet, namely, green succulent feed so essential for animals in milk. These drought-hardy plants are also very palatable and easily established.

The leaves of the spineless cactus and suckers from the aloe are planted out in rows in the early spring, and provided the land is fenced in to keep away stock, no further attention will be required. In three or four years the spineless cactus will yield annually a crop of leaves of some 30 to 60 tons per acre, while in six or seven years the aloe will provide about the same returns. The salt bush (Old Man variety) should be planted in seed-beds in August and later, and about March transplated into the permanent plantation, which can be protected from stock for three or four seasons. Such a plantation will furnish excellent grazing for all classes of stock. The creeping salt bush (*Atriplex semibaccata*) may be broadcasted at the rate of 5 to 10 lb. of seed per acre during the rainy season.

Farmers in the drought-stricken areas especially should make every effort to reduce losses of stock by establishing acreages of these plants. It may be stated that animals have been kept without water for over 500 days merely by feeding on cactus leaves. In themselves the cactus and aloe are not sufficient to maintain an animal which in addition requires a food of the richness of lucerne.

6. **Chicory.**—On account of competition from overseas, chicory growers have had many ups and downs. The chicory growers of the Union are now afforded some measure of protection by the duty on imported chicory. As the quality of the chicory grown in the Union is considered by manufacturers to be equal to that of the imported article, users of chicory in this country should insist on the home product in preference to that from overseas, thereby ensuring a ready sale for the South African product and helping the chicory growers of the Union.

Excellent chicory is produced in Alexandria, in the Cape Province, and Bethal, in the Transvaal, while the crop can be grown in George, the Gamtoos, Pretoria, Piet Retief, and many other districts and Swaziland. Those farmers who grow or intend growing the crop should make contracts with manufacturers before planting an extensive area. Names of manufacturers can be obtained by communicating with the Secretary for Agriculture. If contracts at the rate of 15s. per 100 lb. could be secured by growers, profits of £10 per acre and over should be obtained. Chicory is best adapted to deep well-drained soils that are not too sandy. It is cultivated as a summer crop in the Transvaal and as a winter or summer crop in Alexandria (where sowings are made in March or September). The variety usually planted is the *Long Magdenburg*. As weeds are troublesome, the crop should only be sown on clean lands, as this saves a considerable amount of labour later. About 1½ lb. of seed per acre, planted in rows 12 in. to 18 in. apart, will be required. The crop responds to applications of manure and fertilizer. The former, which should be well rotted, must be applied some time before sowing. Superphosphate and sulphate of potash at the rate of 200 and 50 lb. per acre respectively should have a beneficial effect.

The crop is harvested when the roots on being cut show no sign of giving off a milky fluid. This is usually about six months and four months after sowing in the case of the winter and summer crop respectively. Details with regard to the treatment of this crop may be found in Reprint No. 27, 1921, of the Union Department of Agriculture, Pretoria, which may be procured from the Librarian, Department of Agriculture.

7. **The Millets.**—The millets or manna are relatively quick-maturing summer annuals that thrive in hot areas. They are very drought hardy and can be grown successfully on rather unproductive soils. There are several types of millets, the chief being the *Foxtail*; others are the *Japanese Barnyard*, and the *Pearl* millets. These crops are used largely for the production of hay where a quick-maturing summer catch-crop is required. The hay is inferior in quality to teff and is not to be recommended for horses as a sole diet, as millet hay causes disorders known as millet fever. The *Pearl* millet is rather a coarse late maturing variety that is used for the production of grain (chiefly for poultry feed and for beer making by the natives) as well as for hay. From 15 to 20 lb. of seed are required per acre, the method of sowing usually being that of broadcasting. As the crop thrives in hot weather and is very tender to frost, planting should take place somewhat late in the season from November to January. Hay, which should be cut when the plant comes into flower, will be ready in some 8 to 12 weeks after sowing, depending on the variety. As the millets will yield two to three tons or more of fair-quality hay per acre, they are to be recommended as a catch-crop in those areas where rainfall is uncertain and often too late in the summer to permit of maize being grown.

8. **Silage.**—All animals are partial to green succulent feed; and succulent feed is especially required by animals in milk. In many parts of South Africa conditions are such that stock for a great part of the year cannot obtain the desired amount of green feed in nature, so that the farmer has to provide for it by some other means. This other means may be either the growing of fodder crops and feeding them off to stock green from the land, or the preservation of suitable crops in a succulent form by protecting them from the air. The produce obtained by this latter process is known as ensilage, or, more commonly, silage.

The advantage of silage-making is that practically all of the commonly grown agricultural plants, and even veld-grass, can be utilized for this purpose, so that the farmer can grow the crop most suitable to his area. It also enables the farmer to preserve feed in a succulent form for his stock for that part of the year when he cannot economically obtain green fodder from his fields and when the veld itself yields little, or no, green herbage.

Although the majority of commonly cultivated plants have given satisfactory results in experimental trials, practice has shown that maize is the silage-crop *par excellence*; and the value of the silage is increased if the maize is mixed with a leguminous crop in the proportion of two of the former to one of the latter. In the latter case it is to be recommended that the maize be drilled and the other crop sown among the young maize plants. Velvet beans or cow peas serve this purpose well. The two crops should, however, not be sown together if general conditions, e.g. rainfall and soil fertility, are not such that big yield may be expected.

Silage from maize should be made when the plant has already set seed and the latter has reached the dough stage, which will be about the fifth or sixth week after the tassels have formed. In the case of the finer legumes (such as lucerne) the crop should be cut when it is past the flowering stage; in the case of the coarser varieties, e.g. velvet beans, when they are in the pod stage. The plants should, however, not be cut when they are too young, as a heavy loss will result in the silage because of the excessive amount of moisture contained and subsequently liberated by the stalks and leaves. On the other hand, if they are cut when they have become old, desirable fermentation does not take place. Nevertheless, good silage may be obtained from what would appear to be useless dry plants if sufficient pressure be applied to exclude air and water be added, e.g. sprinkled over the plants, to soak them thoroughly and so establish conditions satisfactory for fermentation. As much heat is developed in this process, the silage should preferably not be used for at least eight to ten weeks after being put into the silo, because of the danger of admitting air and the consequent burning and spoiling of the silage.

As the plants used for silage must be preserved out of contact with air, they are packed or stored in a structure known as a *silo*. This may take either the form of an underground pit, when it is known as pit-silo, or in an above-ground construction, known as a tower silo. The former is usually a rectangular trench dug out in the soil; the latter is a cylindrical tower constructed of concrete, steel-plates, or even wood. The cylindrical silo is, of course, much more expensive to construct than the pit or trench silo.

A trench silo recommended by the Department of Agriculture (see Bulletin No. 14, 1924) is one having the following dimensions: The trench should be 60 feet long and 12 feet wide at the bottom, 15 feet wide at the top and 12 feet deep. There is an outslope at each end—one of 1 in 3, the other 1 in 5. The surface dimensions including the outslopes will be 156 feet by 15 feet. To excavate the trench, first mark out on the site selected the surface dimensions given, plough and remove the soil with dam scrapers, and trim the walls smooth with spades.

A silo constructed according to the above instructions will be of 315 tons capacity when full, and for every foot it is made longer or shorter, its capacity is increased or decreased two and four-fifth tons. The advantage of this form of silo is that it permits of a wagon being driven into the trench, and the stalks turned out directly into it. Thorough tramping is done by the wagons passing over the plants, and air is thus forced out. In the case of the overhead silo the plants are cut up fine and blown into the tower. Careful spreading and tramping should in all cases be done, especially around the edges, so as exclude as much air as possible.

Burtt-Davy calculates that, on the basis of 5 lb. of silage for a sheep, 20 lb. for an ox at work, and 30 lb. for a dairy cow per day, 170 tons of silage will feed and keep in condition 680 sheep, or 170 oxen, or 113 dairy cows for 100 days, or 500 sheep and 24 oxen and 4 dairy cows for 109 days.

The number of silos in the Union has been steadily increasing during the last few years. This indicates that farmers are beginning to appreciate the value of this form of succulent fodder, which is palatable and readily eaten by all classes of stock.

§ 5. General Agricultural Crops (Non-Cereals).

1. **Miscellaneous.**—The following tables give particulars as to the cultivation and production of general agricultural crops in the Union :—

GENERAL AGRICULTURAL CROPS (OTHER THAN CEREALS) REAPED DURING YEARS 1917–18 TO 1923–24.

(i) POTATOES, SWEET POTATOES, PEAS, AND BEANS IN THE UNION.

Year.	Potatoes.		Sweet Potatoes.		Peas.		Beans.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Acres.	1,000 lb.	Acres.	1,000 lb.	Acres.	1,000 lb.	Acres.	1,000 lb.
Census, 1917–18*	110,185†	234,536	20,391†	69,141†	15,394†	11,170	64,500†	51,295
,, 1918–19.	—	205,713	—	—	—	—	—	—
,, 1919–20.	99,648	187,633	—	—	—	—	—	—
,, 1920–21*	94,859†	224,025	22,465†	64,039†	8,508†	7,078	58,951†	65,271
,, 1921–22.	101,742	259,855	—	—	—	—	—	—
,, 1922–23.	80,037	211,085	—	—	—	—	—	—
,, 1923–24.	71,530	211,771	—	—	—	—	—	—

* Includes 14,354,700 lb. potatoes, 1,523,200 lb. peas, and 28,679,800 lb. beans in 1917–18, and 8,094,900 lb. potatoes, 2,763,400 lb. peas, and 42,301,000 lb. beans in 1920–21, produced in Native Locations, Reserves, etc., not enumerated in other years.

† Not enumerated in Native Locations, Reserves, etc.

(ii) ONIONS, GROUND-NUTS, AND PUMPKINS IN THE UNION.

Year.	Onions.		Ground-nuts.		Pumpkins.
	Area.	Yield.	Area.	Yield.	Yield.
	Acres.	1,000 lb.	Acres.	1,000 lb.	No.
Census, 1917–18*...	4,751†	22,290†	6,557†	5,955	11,761,419
,, 1918–19....	—	—	—	—	—
,, 1919–20....	—	—	13,220	6,502	—
,, 1920–21*...	4,965†	23,295†	19,052†	14,241	15,236,214
,, 1921–22....	—	—	17,290	7,501	—
,, 1922–23*...	—	—	15,214†	10,312	—
,, 1923–24*...	—	—	16,227†	14,378	—

* Including 3,607,600 lb. ground-nuts and 4,274,219 pumpkins in 1917–18, 5,309,040 lb. ground-nuts and 4,743,914 pumpkins in 1920–21, 4,418,190 lb. ground-nuts in 1922–23, and 3,881,080 lb. ground-nuts in 1923–24, produced in Native Locations, Reserves, etc., not enumerated in other years.
† Not enumerated in Locations, Reserves, etc.

(iii) MISCELLANEOUS CROPS IN THE UNION*—AREA UNDER CULTIVATION ON THE 30TH APRIL, 1921 AND 1922, AND 31ST AUGUST, 1923 AND 1924.

Year.	Sun-flower Seed.	Bird Seed.	Coffee.	Chicory.	Fibre (culti-vated).	Mangel.	Swedes.	Turnips.	Other Crops.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Census, 1920–21.	10,722	93	10	542	1,109	2,466	2,900	6,500	53,224
1921–22.	8,641	—	—	855	—	—	—	—	—
,, 1922–23.	—	—	—	1,369	—	—	—	—	—
,, 1923–24.	—	—	—	—	—	—	—	—	—

* Native Locations, Reserves, etc., not enumerated.

(iv) POTATOES AND GROUND-NUTS PRODUCED IN THE VARIOUS PROVINCES, 1923–24.

Province.	Potatoes.		Ground-nuts.	
	Area.	Yield.	Area.*	Yield.†
	Acres.	1,000 lb.	Acres.	1,000 lb.
Cape	21,828	59,661	182	44
Natal	5,926	22,021	1,896	2,315
Transvaal	22,412	78,702	13,980	11,985
Orange Free State	21,364	51,387	169	34
UNION	71,530	211,771	16,227	14,378

* Native Locations, Reserves, etc., not enumerated.
† Including 3,881,080 lb. produced in Native Locations, Reserves, etc.

2. **The Potato.**—The potato ranks as one of the leading crops of the Union. It is grown in most parts of the country, though production on a large scale is confined to more or less definite areas where the necessary climatic, soil, and marketing conditions obtain. In the Transvaal, the area of greatest production is found on the high veld, centring around Bethal, Middelburg, and Heidelberg. In the low veld to the north and east, the crop also finds favour under irrigation. In the Orange Free State, it is chiefly grown in the area extending from Thaba 'Nchu and Ladybrand to Harrismith, while potatoes are largely grown under irrigation in the neighbourhood of Petrusburg. The popularity of the crop in Natal increases from the coast northward, the best potato area merging into that of the eastern Transvaal. The Cape Province area of maximum production extends from the

districts surrounding Cape Town to beyond Cathcart being concentrated in the Coastal Belt. The areas where the crop is grown without irrigation are characterized by comparative cool climates, rather light soils, and average annual rainfalls ranging from about 25 in. to about 30 in., the major portion of which falls during the summer.

The time of planting varies in the different areas of the Union. In the eastern Free State, the main crop is planted from November to January, while on the high veld of the Transvaal planting occurs somewhat earlier—from September to December. In the low-veld districts of the Transvaal, owing to the small amount of frost experienced, it is possible to plant the crop in June and July and so catch the early market in October. The crop is one which demands a high standard of cultivation, and the liberal use of fertilizers and animal manure is almost universally necessary. The operations of planting and lifting are usually done by hand.

Hitherto the best growers have imported most of their seed from Scotland and the Continent, but the possibility of producing locally grown seed as good as the imported article is now being realized. In 1924, a Seed Potato Growers' Association was formed with this object in view at Westminster in the Thaba 'Nchu District of the Free State. The Association receives the warmest possible support from the Department of Agriculture, Government experts being supplied to select and grade both the growing crops and later the harvested tubers. The potatoes which attain the desired standard of excellence are sold as "certified seed" under the trade mark of the Association, a certificate of guarantee being also furnished. Sources of supply of this nature in the country are badly needed, as they will enable the farmer not only to obtain his seed at a lower price than that of the imported article, but also without the delay and trouble that often accompany importation. It is hoped that the example of this pioneer Association will soon be followed by others.

The potato market is an uncertain and fluctuating one. So many factors influence the crop that it is impossible to predict returns accurately at any length of time before harvesting. Supply is, therefore, inclined to be erratic and market prices vary accordingly. In the Union, potatoes are sold in bags at 153 lb. gross weight, the principal markets being Durban, Johannesburg, Cape Town, East London, Port Elizabeth, Bloemfontein, and Kimberley. In recent years, an increasing demand has risen for properly graded tubers of the best quality.

3. **Beans.**—Beans grow well in most parts of the Union, but have not so far been grown in sufficient quantity for export. An investigation is being carried out by the Agricultural Department with a view to establishing a standard nomenclature and classification of beans. Experiments are also being carried out to ascertain the varieties suitable for growth in the various parts of the Union, especially for the purpose of export. At present, beans of the dwarf varieties are largely raised for local consumption; these consist of the *Sugar*, *Haricot*, and *Butter* types. *Speckled* beans are largely grown for native trade, the *Haricot* type being more in demand for European consumption. Samples of beans have been submitted to merchants in Great Britain, and, as a result, a system of grading has been suggested. The following varieties, being white in colour and of attractive appearance, are readily saleable in the European markets: White Canadian Wonder, White Flageolette, White Haricot, Case Knife, Canterbury White, and White Scimitar. These produce a good type of bean as regards colour, shape, yield, and edibility, and are early harvesters, maturing as dry seed in ninety days. For local native trade the *speckled* varieties are in demand. These include the well-known *sugar* varieties, i.e. Speckled Port Natal, Natal Sugar, Natal Red, Sugar Dwarf, and Best of All. These are dwarf varieties, mature early, and provide good yields. A white variety of bean known as the *Bomba* or *Natal Large White Kidney* is very suitable for export, but is a runner, and the beans ripen unevenly; this makes harvesting slow and expensive compared with the dwarf varieties.

The *Lappie* is an early runner variety which does well in parts of Cape Province. Of khaki- or brown-coloured beans, the following varieties yield well and are in demand: African Wonder, Bountiful, and Burpees Stringless. The *Tepary Bean* is suited to semi-arid districts, owing to its drought-resistant qualities. It is grown in the Transvaal, and yields good crops of greenish-white beans. *Lima* beans are grown in the sub-tropical districts, but not to the same extent as the dwarf varieties. They require a long growing period (150 days). The following varieties have produced satisfactory yields: Small Butter and White Governor. These are runners and ripen unevenly. Good dwarf varieties are: Wood's Lima, Henderson's Lima, and Burpees Lima.

Some beans are grown mainly for green manuring or soil renovation. These include the *velvet bean*, which provides a heavy growth of foliage and may be utilized either as green manure or as stock food. The *Hyacinth* (*Dolichos*) *bean* produces a very heavy vine, and can be used in a similar way to the velvet bean. Both these varieties pod very late, and require 180 days for seed maturity. If planted early in October they will produce seed in following April. *Field* beans require a good medium loam soil, but will grow in a lighter soil. The heaviest yield is obtained from crops planted in November or December; crops planted later—in January or February—do not show the same vigour in growth, but escape to some extent the depredations of the flower-eating beetle known as *Mylabris*. Planting

is carried out in drills 2 to 3 feet apart, with a spacing of 6 inches in the rows. The seed required per acre depends on the size of the seed used—the smaller seed, like *White Canadian Wonder*, requires 30 lb. per acre; the large seeds, like *Bomba*, require 60 to 80 lb. per acre.

Beans respond readily to phosphatic fertilizer. Frequent cultivation is essential. The crop should be harvested when the greater number of pods have ripened; it is not advisable to wait until all the pods are completely ripe, as there is a probability of loss owing to the premature shedding of over-ripe seed pods. The crop is threshed by means of the flail. The yield varies between three and eight bags per acre.

Soya beans are largely grown for their value as cattle-food in the form of ensilage or hay; they are also valuable for soil renovation, and are used for this purpose. The bean contains a high percentage of oil, and is largely in demand by soap manufacturers. Suitably balanced with other ingredients, the bean is a very useful cattle-food. Good varieties for ensilage are: American White, Mammoth, and Southern. For seed production the Brownie variety is most suitable. Soya beans respond to good soil conditions, and will give a fair crop on the lighter loams. They do not form nodules so readily as the cowpea, but these can be induced by inoculation with suitable cultures. Planting should be carried out in early November in drills 3 feet apart—beans 6 inches apart in rows. Harvesting for hay should be done when pods are green; for ensilage when pods are well formed and just changing colour. The crop can be cut by mowing machine. If required for seed, the plants are pulled when most of the pods are ripe; threshing is done with the flail.

Other beans useful as soil renovators are *Mung*, *Adsuki*, and *Tofy*. These are varieties obtained from Eastern Asia. They are sown and cultivated in much the same way as cowpeas. The *cowpea* is very useful for stock-feeding and soil improvement; it is much used as a legume in the rotation of crops. It readily forms nodules, and is prolific in growth. It is known in some parts of the Union as the *Kaffir Bean*. It makes excellent hay or ensilage, and when ploughed in, builds up the fertility of the soil. Crops can be taken off as hay or ensilage, the roots and stubble remaining being ploughed to assist soil renovation. Good varieties are *New Era*, *Iron*, and *Wonderful*; these produce heavy vines. The *Brabham* variety is very upright in growth, and can be cut with a mowing machine. Cowpeas grow well in a sandy loam and respond to richer types of soil. Planting should be carried out in November (for seed) and December (for hay and ensilage). Planting is carried out in drills 3 feet apart, using maize planter with suitable plates. Frequent cultivation is necessary until vine forms complete cover. About 30 lb. seed per acre is required. The crop is ready for harvesting as hay just after the formation of pods; for ensilage when the pods are well formed. If required for seed, the pods can be hand-picked and threshed with the flail, the remaining part of the plant being fed to stock.

Broad beans and *peas* may be grown as winter legumes, but the former do not provide very satisfactory returns. Comparatively good varieties are *Aquadulce* and *Sevelle Long Pod*. Planting is carried out in April, the crop being ready for harvesting as dry bean in November. Suitable winter pea varieties are *Australian Maple Peas* and *Daisy Peas*. *Vetches* are suitable winter legumes. There are two outstanding varieties: *Spring Vetches* and *Hairy Vetches*. These are sown in April, and can be harvested in November.

4. **Peanuts.**—The peanut, also known as the ground-nut or monkey-nut, is a sub-tropical to tropical legume, requiring a fairly long growing season of from $3\frac{1}{2}$ to 5 months and is very sensitive to frost. It is a crop of increasing importance in many low veld and middle veld areas, the leading districts in production being Pietersburg, Waterberg, Zoutpansberg, Barberton, and Pretoria, in the Transvaal. The natives have grown this crop for many years, but it is only since 1914 or thereabout that its value as a nutritious hay crop and concentrate has been recognized by farmers. It is proving a valuable crop for the drier, warmer areas of the Transvaal, fitting very well into farming systems in these areas. The nuts are used in the preparation of products for human consumption and also as a source of high quality oil. The cake resulting from the expressing of the oil forms a palatable high protein concentrate for cattle. The peanut plant, being fairly drought resistant, is adapted to the warm, dry summer-rainfall areas of the Union. Having a fairly high labour requirement, its culture has been most successful in areas where native labour has been plentiful. The growing importance of the crop, however, has created a demand for machinery for its culture. With the more general use of machinery, a greatly increased production can be expected.

Peanuts thrive well on fertile soils, the lighter sandy soils giving the best quality of product from the commercial point of view. This crop is fairly free from serious diseases or insect pests, although *Rosette* disease has been serious in certain areas. Now that the problem of the transmission of this disease has been solved, a solution of the problem of control may be expected.

The average yield of peanuts is from 17 to 20 bags per acre, while with good farming, 25 bags should be obtained. The crop is usually marketed in bags containing 70 lb. of unshelled nuts.

§ 6. Vineyards and Fruit Cultivation.

1. Viticulture.—(i) *Introduction of Viticulture into South Africa.*—It is generally believed that the French Huguenots were the first to introduce the vine into South Africa, and it is often stated that they came to the country with a Bible in one hand and a vine in the other. As a matter of fact, however, the vine was introduced into South Africa as early as 1653—the year after the landing of Van Riebeek. At that time the Netherlands East India Company traded largely with the East Indies via the Cape of Good Hope. One of the articles traded in was brandy, which was obtained from France, through the port of La Rochelle. This gave the French brandy industry an enormous impetus, and it was soon found that the brandies from the Charante district, of which Cognac is the chief town, were superior to brandies from other districts. Hence it is not surprising that the Dutch, knowing the value of brandy, should introduce vines at the Cape with the object of producing the article themselves. The Governor, Van der Stel, encouraged and helped viticulture as much as possible, importing vines from France, Germany, and Portugal. The French Huguenots, who came mostly from wine districts, adapted themselves naturally to the cultivation of the vine, and viticulture became one of the most important branches of agriculture in South Africa, especially in the Paarl and Stellenbosch districts, where the Huguenots mostly settled, and where viticulture still predominates over other agricultural pursuits. To-day vines are largely cultivated in the following districts, named in order of production :—Paarl, Worcester, Stellenbosch, Malmesbury, Cape, Robertson, Tulbagh and Ceres, Piquetberg, Montagu, and Caledon. In many other districts vines are grown, but on a smaller scale.

Early in the year 1886, the Phylloxera was discovered in the Cape and Stellenbosch districts. The Government of the Cape of Good Hope made every effort to eradicate the disease, but without success. In 1892 resistant American stocks were imported, and about 90 per cent. of the vines of the Union are now grafted on such stocks.

The table hereunder gives particulars as to the extent of vineyards and the number of vines of different varieties in the Union :—

VINEYARDS, 1918 AND 1921.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total, 1921.	Total—Census of 1918.
Area of Vineyards—Acres	54,405	25	347	271	55,048	47,167
Number of Vines—Bearing	84,258,133	22,400	410,430	279,297	84,970,260	74,829,242
Non-bearing	16,981,374	7,100	95,542	53,708	17,137,724	13,010,724
TOTAL	101,239,507	29,500	505,972	333,005	102,107,984	87,839,966

The natives have not as yet adopted this branch of farming.

(ii) *Government Aid for the Industry.*—About 1885 the Cape Government bought the farm *Groot Constantia* in the Cape Peninsula, with the intention of carrying out experiments in viticulture and wine-making, as well as of educating farmers in improved methods of wine-making. Several young farmers availed themselves of this opportunity by working on the farm for some time as apprentices. A competent man was appointed to manage the farm and to act as adviser to the farmers. One of the many resultant benefits was the raising of the standard of the country's light wines owing to the superior article produced and placed on the market.

In 1910 the Government bought the small farm *Belle Vue* in the Paarl district as an experiment station for testing the best grapes both for market and wine-making purposes. Dr. A. I. Perold, who was at that time appointed Viticulturist for the Union, was stationed there and he imported about 200 different varieties of grapes. This station is of considerable assistance to viticulturists, as from it many varieties of grapes are distributed over the Union after their suitability as table or wine grapes has been studied. Experiments in wine-making are also carried out at this station.

In 1905 the Cape Government inaugurated a scheme of co-operative wineries by furnishing financial assistance in the shape of loans. Under this scheme nine co-operative wineries were established where large quantities of wine of uniform quality could be made

for which a ready market could be found. At first these wineries failed to realize anticipations and two were closed down. The rest, however, are now doing very well, and it is acknowledged that it would be beneficial to the industry if more co-operative wineries were established.

(iii) *Co-operative Association.*—Towards the end of 1917 the wine market was very depressed, wines being sold for £2. 10s. and £3 per leaguer (127 gallons), which is not considered to be remunerative to the producer. Consequently, the farmers decided to unite, and thus the Co-operative Wine Farmers' Association of South Africa, Ltd., was formed. Over 95 per cent. of the wine farmers joined this Association, the object of which is to guarantee a minimum price for wine, and thus to ensure a stable wine market. A board of directors is appointed by the members, which fixes yearly the prices for wine. The farmers, on joining, undertake not to sell their wines to any merchant who is not a member of the Association, and on their part the merchants promise to buy wines only from farmers who are members. In case a member sells his wines below the minimum price or to a non-contracting merchant, he is liable to a fine of £5 per leaguer, unless he exports his wines. Difficulties, however, arose with regard to certain ambiguous clauses in the constitution, which led to the subsequent reorganization of the Association on a sound basis, so as to fall in line with Act No. 28 of 1922. The wine merchants thereupon resigned as members of the Association.

During the first session of Parliament in 1924, the *Wine and Spirits Control Act* (No. 5 of 1924) was passed, which gave the Association absolute control over all wines declared by the producer as distilling wine, whether belonging to a member or a non-member. Every wine grower in the Cape Province renders to the Association on a certain date each year a return of all wines, spirits, and brandy produced by him, and states what quantity he has for disposal for consumption as wine, and what quantity he has for sale as distilling wine. Further, the Act laid down that after the 1st June, 1928, only spirits and brandy, kept in wood for at least three years, may be sold for consumption. The price the farmer gets for distilling wine is each year fixed by the board of directors, according to the surplus. Henceforth, no wine can be included in the surplus which was not declared as distilling wine.

For every leaguer of wine sold by a member, the Association deducts ten shillings for three years, and for every amount so deducted the member receives a share in the association. The intention is that the fund created should be used by the Association when necessary to deal with any surplus wine which may be on the market, the Association buying these wines at the minimum price, and after they have been turned into spirits, disposing of them outside the Union.

(iv) *Branches of the Industry.*—Vines are grown in the Union to produce fresh fruit, to promote wine-making, and to produce brandy and raisins. For these purposes the undermentioned varieties of grapes are principally grown :—

Export and Table Grapes.—White and Red Hanepoot, Hermitage, Raisin Blanc, Barbarossa, Waltham Cross, Flame-coloured Tokai, Black Prince, Gros Colman, Rosaki, Molinera Gorda, Ohanez, and others.

Wine-making.—Green Grape, Hanepoot, Hermitage, Steen, White French, and others.

Brandy.—All wine varieties, Folle Blanche, Colombard, St. Emilion, Jurancon.

Raisins and Currants.—Hanepoot, Sultana, Cape Currant.

Dried Wine Grapes.—Hermitage, and other Wine-making varieties.

(v) *Table Grapes.*—Large quantities of table grapes have of late years been exported, and this branch of industry has developed into a flourishing trade and has a great future.

(vi) *Wine, Brandy and Vinegar.*—The Dutch introduced vines chiefly for the purpose of brandy-making, brandy being a valuable article of commerce ; but on the arrival of the Huguenots in 1688 wine-making also was taken up seriously. The natural conditions in South Africa led to the production of a heavy type of wine, as well as of sweet wines. German and Austrian experts engaged by the Cape Government advocated the making of light wines, but the advance in this direction was slow. It is only during the last twenty years that this branch of the industry has progressed, and some excellent light wines are now produced in the Union. Towards the end of 1920, owing to speculation and the absence of a fixed maximum price, the price of wine rose to a prohibitive figure, resulting in some firms being forced into liquidation and others being financially weakened. At the same time consumption was considerably reduced in consequence of high retail prices. This brought about a large surplus which could not be disposed of. Farmer members could only sell to contracting merchants who had the control of the retail trade in their hands and kept prices high in order to make good the losses sustained in previous years. To try and save the situation the Co-operative Association (Ko-operatieve Wynbouwers Vereniging van Zuid-Afrika, Beperkt) decided to erect a plant for turning out motor fuel from wine spirits. As only wine of an exceptionally low value can be used for this purpose, it was soon evident that the high cost of transport would render it impossible to distil the bulk of the surplus into motor spirit. Consequently it was decided to destroy the surplus in the

outlying districts. In order to obviate a continuation of this waste, the Co-operative Association strongly advised farmers to turn as many grapes as possible into raisins and as an inducement offered to pay a premium under certain conditions for each pound of raisins exported. In 1925 a flat rate of ½d. per pound of raisins was given as a premium over and above what the farmer received from the merchant. To induce farmers to establish an export wine trade the "Ko-operatieve Wynbouwers Vereniging" agreed to supply spirits from its surplus stock to farmers for the production of sweet wines at a nominal price provided such wines were exported to Europe. In order to safeguard the industry and ensure that the quality exported would be of a high standard, the Government brought a regulation into force in 1924 which stipulated that no wine might be exported to the United Kingdom unless it was at least 18 months old, and any wine for export to the United Kingdom or Europe must be approved of by Government officials, who give a certificate to the effect that the wine is of the required quality.

Table (*a*) below shows the quantity of wine, brandy, and vinegar made on farms during a series of years, and Table (*b*) the quantity and value of wine exported from and imported into the Union from the year 1910 :—

(*a*) WINE, BRANDY, AND VINEGAR MADE ON FARMS DURING YEARS 1903-04 TO 1923-24.

Year.	Wine		Brandy.		Vinegar.
	White.	Red.	Wine.	Grape.	
	Gals.	Gals.	Gals.	Gals.	Gals.
1903-04*.....	4,225,950	1,460,721	1,534,069†		114,015
1910-11.....	5,468,032	2,032,625	152,196	77,922	32,167
1917-18.....	7,602,560	4,128,384	166,272	182,400	283,008
1918-19.....	8,274,816	4,289,408	73,216	83,584	118,784
1919-20.....	10,048,384	5,487,744	100,608	203,136	101,120
1920-21.....	11,106,900	5,838,024	206,013	148,092	128,871
1921-22.....	8,721,174	4,603,107	195,564	147,189	110,166
1922-23.....	13,395,747		104,232	48,117	64,758
1923-24.....	11,320,653		63,468	30,960	81,399

* Cape only. † Brandy and spirits.

(*b*) WINE IMPORTED INTO AND EXPORTED FROM THE UNION, 1910 TO 1924.

Year.	Imports less Re-Exports.			Exports (S.A. Produce).		
	Quantity.	Value.		Quantity.	Value.	
		Total.	Per gallon.		Total.	Per Gallon.
	Galls.	£	£ s. d.	Galls.	£	s. d.
1910.....	82,246	65,257	0 15 10	76,982	18,241	4 9
1911.....	82,191	64,243	0 15 8	96,118	21,944	4 7
1912.....	78,646	62,473	0 15 11	85,717	19,791	4 7
1913.....	72,987	60,214	0 16 6	80,133	19,262	4 10
1914.....	49,334	37,192	0 15 1	69,852	15,975	4 7
1915.....	53,179	40,405	0 15 2	99,842	26,506	5 4
1916.....	63,462	48,200	0 15 2	190,888	40,133	4 2
1917.....	43,136	35,473	0 16 5	357,002	57,777	3 3
1918.....	47,452	42,947	0 18 1	487,507	125,419	5 2
1919.....	36,690	59,848	1 12 7	452,021	121,897	5 5
1920.....	80,963	142,411	1 15 2	518,223	204,649	7 11
1921.....	36,702	38,127	1 0 9	404,099	106,441	5 3
1922.....	40,177	40,197	1 0 0	474,980	91,808	3 10
1923.....	32,282	30,067	0 18 8	708,614	118,498	3 4
1924.....	40,597	39,996	0 19 8	499,385	75,247	3 0

The brandy industry of South Africa is as old as the wine industry. Formerly, only two kinds of brandy were recognized, viz., dop and wine brandy. Dop brandy was so known from the Dutch word *dop* (husk), which signified that the brandy was obtained from the distillation of *doppe* together with wine, or piquette. The distillation of husks and piquette mixed is now practically prohibited; a discriminating excise duty of 22s. 6d. per proof gallon is imposed. The brandy produced from the distillation of husks and wine

mixed has taken the name of grape brandy, which is somewhat of a misnomer. On this brandy an excise duty of 17s. 6d. per proof gallon is levied, which means that it is practically out of the market, as the excise duty on pure wine brandy is considerably lower, i.e. 12s. 6d. per proof gallon.

Perhaps in no other country is the distillation of husks so suppressed as in South Africa. It is hoped that the purity of South African brandy will in time be recognized, and create a high standard on the world's markets. The Union adulteration laws, both with regard to brandy and to wine, are stringent.

Table (*c*) hereunder gives particulars of the production, importation, and consumption of brandy in the Union from the year 1910 :—

(*c*) BRANDY—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910 TO 1924.

YEAR.	PRODUCTION.*		TOTAL PRODUCTION.	IMPORTS (LESS RE-EXPORTS).	EXPORTS.	VARIOUS USES.	CONSUMPTION.
	Professed Distillers.	Agricultural Distillers.					
	Galls.	Galls.	Galls.	Galls.	Galls.	Galls.	Galls.
1910.....	838,028	479,993	1,318,021	75,430	35,910	492,208	865,333
1911.....	975,509	444,558	1,420,067	71,835	33,838	457,637	1,000,427
1912.....	1,124,637	469,716	1,594,353	81,482	31,492	413,526	1,230,817
1913.....	1,412,187	314,781	1,726,968	71,604	35,465	478,843	1,284,264
1914.....	1,175,037	196,704	1,371,741	61,873	23,677	424,276	985,661
1915.....	1,466,173	196,795	1,662,968	71,217	37,558	520,844	1,175,783
1916.....	1,566,660	199,580	1,766,240	72,464	452,007	661,141	725,556
1917.....	1,814,785	212,199	2,026,984	18,511	89,931	606,029	1,379,535
1918.....	2,079,022	122,370	2,201,392	28,298	164,786	608,857	1,456,047
1919.....	2,118,051	130,731	2,248,782	10,477	104,315	594,425	1,560,519
1920.....	2,109,895	130,240	2,240,135	39,037	75,172	671,788	1,532,212
1921.....	2,596,529	207,385	2,803,914	37,433	50,381	517,280	2,273,686
1922.....	1,497,487	160,856	1,658,343	19,585	43,674	769,548	864,706
1923.....	1,324,720	161,583	1,486,303	17,376	42,291	922,767	538,621
1924.....	1,557,858	126,611	1,684,469	16,383	46,192	812,238	842,422

* As given in Excise Reports.

(vii) *Raisins and Currants.*—Both loose and stalk raisins are produced in the Union. The raisin produced from the Sultana grape is an excellent article, and has completely supplanted the imported commodity. *Hanepoot* and *Muscat d'Alexandrie* raisins have not as yet reached the standard of the imported article, but are improving rapidly. 6,983,515 lb. of raisins were exported during 1921 (to the value of £179,599), 11,878,355 lb. in 1922 (to the value of £249,412), 5,336,884 lb. in 1923 (to the value of £87,057), and 6,666,015 lb. in 1924 (to the value of £93,144).

The real *Zante Currant* grape was not imported into the Union until 1916. The Cape currant is a kind of dwarf Muscadel, and possesses a pleasing flavour, but is not cultivated on a large scale.

The subjoined table gives particulars of the quantities of raisins and currants produced on farms during a series of years :—

RAISINS AND CURRANTS PRODUCED ON FARMS, YEARS 1903-04 TO 1923-24.

YEAR.	RAISINS.				CURRANTS.
	Stalk.	Loose.	Sultana.	Total.	
	lb.	lb.	lb.	lb.	lb.
1903-04*.....	60,520	1,726,895	43,116	1,830,531	7,794
1910-11.....	125,310	2,230,787	157,572	2,513,669	11,159
1917-18.....	496,287	4,716,526	1,148,588	6,361,401	113,853
1918-19.....	269,900	3,823,800	821,200	4,914,900	68,000
1919-20.....	411,800	3,907,600	852,700	5,172,100	68,000
1920-21.....	1,106,500	5,452,100	1,835,400	8,394,000	77,500
1921-22.....	3,028,154	10,114,315	2,498,883	15,641,352	118,515
1922-23.....	2,215,642	5,891,976	3,713,694	11,821,312	179,364
1923-24.....	2,912,900	6,238,500	1,894,300	11,045,700	213,600

* Cape Province only.

NOTE.—Dried Hermitage grapes, 1922-23, 2,217,634 lb.; 1923-24, 1,426,600 lb. Other dried wine grapes, 1922-23, 69,412 lb.; 1923-24, 647,800 lb.

2. Fruit Cultivation.—(i) *Fruit Growing.*—The fruit-growing industry in the Union dates back to the early days of the occupation of the Cape, when it was found at once that the soil and climate were well adapted for the purpose of fruit cultivation. Nevertheless, there was no great advance in the industry until the closing years of the nineteenth century, by which time, as the result of the gradual development of fruit growing, particularly in the Western Province of the Cape of Good Hope, production of large quantities of soft fruits, such as grapes, peaches, apricots, plums, and pears, in excess of domestic requirements, had been reached. There thus came into existence an export trade, at first on a small scale—in 1900, some years after its initiation, shipments to the extent of no more than 309 tons were made—but increasing as the industry developed and the trade became better organized, until by the year 1910 the shipments had reached a total of 2,705 tons. Since that time the export of fruit has still further increased. The consumption of fruit in the Union is very great, especially in the mining areas, and plantings are being considerably extended, particularly of citrus fruits and pineapples, for the cultivation of which large areas are well suited. The principal fruits exported from the Cape Province are peaches, pears, plums, apricots, nectarines, oranges, naartjes, pineapples, melons, and grapes; from the Transvaal, oranges, naartjes, grape fruit, and mangoes; from Natal, oranges, naartjes, pineapples, bananas, mangoes, avocado pears, with a few early plums; and the Orange Free State, pears, peaches, apples, and a few cherries. These fruits are the kinds chiefly sent oversea; but the following list also includes other varieties grown in the several Provinces. The range of fruit produced in the Union is due to variations in altitude, rising gradually from a long line of coast to between 6,000 and 8,000 feet above sea-level. It may be said that there is no spot in the Union where some known fruit will not grow and thrive.

VARIETIES OF FRUIT GROWN IN THE UNION ON A COMMERCIAL SCALE.

Apples.	Guavas.	Papaws.
Apricots.	Lemons.	Peaches.
Avocado Pears.	Limes.	Pears.
Bananas.	Litchis.	Pineapples.
Cherries.	Mangoes.	Plums.
Cape Gooseberries.	Melons.	Quinces.
Figs.	Naartjes.	Strawberries.
Grape Fruit.	Olives.	
Grenadillas	Oranges.	

(ii) *Fruit Export.*—The fruit export industry is governed by Regulations under the *Fruit Export Act* of 1914, the effect of which is to maintain a high standard of quality in all fruit exported. In order to place the organization of the industry and of the fruit export trade on a stable basis, and with the object of eliminating the shipment of waste and inferior fruit, likely to bring the South African product into disrepute, a South African Fruit Growers' Exchange was formed in December, 1921, including fruit growers in all parts of the Union and Rhodesia. The deciduous fruit industry is organized for export purposes in the Western Province Central Deciduous Co-operative Company, Ltd., which was formed in 1924. Revised regulations governing the export of fruit were published in December, 1922, and April, 1923.

The following tables contain the results of a special census, taken in 1925, of deciduous and citrus fruit trees, the fruit of which is grown particularly for purposes of export :—

SPECIAL CENSUS OF FRUIT TREES THE FRUIT OF WHICH IS GROWN FOR EXPORT, 1925.

(*a*) **Deciduous.**

Description of Tree.	Cape. Number of Trees and Ages.				Transvaal. Number of Trees and Ages.			
	1–3 Years.	4–6 Years.	7 Years and Over.	Total.	1–3 Years.	4–6 Years.	7 Years and Over.	Total.
White peaches	130,802	29,829	42,269	202,900	12,403	9,515	11,248	33,166
Yellow peaches	47,590	43,121	21,506	112,217	2,822	3,476	2,358	8,656
Nectarines	11,072	7,028	11,822	29,922	344	389	245	978
Pears	138,374	102,633	208,241	449,248	3,838	4,372	1,608	9,818
Plums	187,780	53,034	69,517	310,331	10,173	6,439	4,167	20,779
Apricots	62,067	34,474	31,064	127,605	2,328	1,813	386	4,527
Apples	82,695	46,041	48,751	177,487	60,625	103,298	26,964	190,887

Vines.	Cape.			Transvaal.		
	Number of Vines and Ages.			Number of Vines and Ages.		
	1 Year and Under 4.	4 Years and Over.	Total Number of Vines.	1 Year and Under 4.	4 Years and Over.	Total Number of Vines.
Grape.....	865,401	1,998,407	2,863,808	1,370	360	1,730

Description of Tree.	Orange Free State.				Union.			
	Number of Trees and Ages.				Number of Trees and Ages.			
	1–3 Years.	4–6 Years.	7 Years and Over.	Total.	1–3 Years.	4–6 Years.	7 Years and Over.	Total.
White peaches.....	—	4,000	1,050	5,050	143,205	43,344	54,567	241,116
Yellow peaches.....	—	100	—	100	50,412	46,697	23,864	120,973
Nectarines.....	—	200	—	200	11,416	7,617	12,067	31,100
Pears.....	100	—	550	650	142,312	107,005	210,399	459,716
Plums.....	2,000	—	—	2,000	199,953	59,473	73,684	333,110
Apricots.....	3,000	300	—	3,300	67,395	36,587	31,450	135,432
Apples.....	—	14,000	20,000	34,000	143,320	163,339	95,715	402,374

Vines.	Orange Free State.			Union.		
	Number of Vines and Ages.			Number of Vines and Ages.		
	1 Year and Under 4.	4 Years and Over.	Total Number of Vines.	1 Year and Under 4.	4 Years and Over.	Total Number of Vines.
Grape.....	—	—	—	866,771	1,998,767	2,865,538

(*b*) Citrus.

Description.	Cape.				Natal.			
	Number of Trees and Ages.				Number of Trees and Ages.			
	1–3 Years.	4–6 Years.	7 Years and Over.	Total.	1–3 Years.	4–6 Years.	7 Years and Over.	Total.
Navel oranges.....	156,947	92,171	122,058	371,176	36,096	15,842	14,066	66,004
Other oranges.....	84,036	17,025	58,211	159,272	42,478	10,803	15,435	68,716
Total Oranges.....	240,983	109,196	180,269	530,448	78,574	26,645	29,501	134,720
Naartjes, tight skinned varieties only.....	2,428	1,808	6,324	10,560	6,500	106	3,520	10,126
Grape-fruit, all varieties..	14,895	4,228	4,779	23,902	1,164	—	—	1,164

Description.	Transvaal. Number of Trees and Ages.				Union. Number of Trees and Ages.			
	1–3 Years.	4–6 Years.	7 Years and Over.	Total.	1–3 Years.	4–6 Years.	7 Years and Over.	Total.
Navel oranges.....	638,515	263,001	175,840	1,077,356	831,558	371,014	311,964	1,514,536
Other oranges.....	544,382	146,411	124,996	815,789	670,896	174,239	198,642	1,043,777
Total oranges...	1,182,897	409,412	300,836	1,893,145	1,502,454	545,253	510,606	2,558,313
Naartjes, tight skinned varieties only.....	5,753	3,567	9,785	19,105	14,681	5,481	19,629	39,791
Grape-fruit, all varieties.....	18,086	4,323	4,850	27,259	34,145	8,551	9,629	52,325

The following table gives the value of fresh fruit exported from and imported into the Union during a series of years :—

VALUE OF FRESH FRUIT IMPORTED INTO AND EXPORTED FROM THE UNION, 1910 TO 1924.

Year.	Total Imports less Re-exports.	Exports (S.A. Produce).	Year.	Total Imports less Re-exports.	Exports (S.A. Produce).
	£	£		£	£
1910.....	14,739	46,595	1918.....	821	42,288
1911.....	14,837	60,398	1919.....	2,273	84,762
1912.....	19,756	70,782	1920.....	4,957	192,846
1913.....	25,190	68,632	1921.....	6,759	432,895
1914.....	14,462	108,780	1922.....	14,683	550,525
1915.....	6,453	74,952	1923.....	13,816	567,698
1916.....	8,376	89,216	1924.....	30,356*	464,105
1917.....	1,481	43,460			

* Made up as follows: Citrus, £278; apples, £14,944 (chiefly from Australia and Canada); other, £16,088, less £954 re-exports. From Portuguese East Africa the imports of fruit amounted to £13,602.

The following table gives the value of fresh fruit of various kinds exported from the Union during a series of years (excluding exports to Rhodesia and ships' stores) :—

VALUE OF VARIOUS CLASSES OF FRESH FRUIT EXPORTED FROM THE UNION 1918 TO 1924 (EXCLUDING EXPORTS TO RHODESIA AND SHIPS' STORES).

Class of Fruit.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Citrus—	£	£	£	£	£	£	£
Lemons.....	248	193	139	134	223	192	325
Naartjes.....	555	2,495	2,221	8,911	11,108	6,245	12,403
Oranges.....	1,971	36,144	87,671	198,410	200,496	193,715	198,521
Other Citrus.....	3	141	3,220	2,553	7,440	8,631	11,623
Deciduous—							
Apples.....	4,688	3,328	4,332	4,355	9,028	6,684	6,346
Apricots.....	165	134	543	1,601	2,940	1,769	3,480
Nectarines.....	33	14	2,468	3,672	6,459	6,783	3,885
Peaches.....	775	576	10,189	31,625	36,435	40,132	24,042
Pears.....	2,535	9,763	21,557	84,935	102,886	153,516	82,851
Plums.....	686	453	9,481	13,882	25,934	20,995	19,197
Other deciduous.....	152	130	71	92	390	310	966
Grapes.....	1,982	4,456	23,504	46,109	86,325	93,165	62,944
Other kinds—							
Bananas.....	511	764	536	518	802	894	908
Guavas.....	—	—	14	—	22	4	2
Mangoes.....	2	—	3	4	—	174	175
Melons.....	512	264	2,162	3,603	10,166	1,708	867
Pa-Paws.....	—	—	—	13	—	—	3
Pines.....	247	366	1,516	7,789	26,979	9,914	13,078
Other non-deciduous.....	19	44	8	81	60	267	198
TOTAL.....£	15,084	59,265	169,635	408,287	527,693	545,098	441,814

The following tables give the number of citrus and other fruit trees on farms in the Union in various census years. Trees in urban areas were not enumerated until 1921.

(*a*) CITRUS FRUITS.—NUMBER OF LEMON, ORANGE, AND NAARTJE TREES IN THE UNION, 1911, 1918 TO 1921 AND 1924 (EXCLUDING NATIVE RESERVES AND LOCATIONS).

YEAR.	LEMON.	ORANGE.		NAARTJE.		TOTAL.
		Grafted.	Seedling.	Grafted.	Seedling.	
1911*.....	172,856	985,601		404,189		1,562,646
1918*.....	248,336	1,277,405	548,237	174,971	266,933	2,515,882
1918†.....	167,485	989,823	370,294	132,119	222,050	1,881,771
1919†.....	144,080	887,470	359,440	127,280	165,490	1,683,760
1920†.....	166,320	954,840	327,570	109,850	213,450	1,772,030
1921‡.....	160,710	1,371,615	439,375	149,470	226,610	2,347,780
1924*.....	225,950	2,471,520	488,270	145,680	175,500	3,506,920

* All districts. † Principal fruit-growing districts only. ‡ All districts including Urban Areas.

(*b*) FRUITS (NON-CITRUS).—NUMBER OF TREES IN THE UNION, 1911, 1918 TO 1921, AND 1924

Year.	Apple.	Apricot.	Mango.	Nectarine.	Peach.	Pear.	Plum and Prune.	Other Fruit Trees.
1911*..	1,429,858	1,025,193	—	98,687	5,902,480	650,937	635,646	—
1918*..	2,171,336	1,161,173	96,685	206,349	5,770,164	788,352	1,143,649	2,372,239‡
1918†..	1,224,748	722,093	79,232	95,589	2,433,888	508,713	764,680	602,020
1919†..	1,147,830	762,520	102,460	51,840	2,517,070	511,010	811,600	—
1920†..	1,211,550	907,800	105,330	57,560	2,411,270	542,320	995,570	—
1921‖..	2,471,090	1,454,250	134,010	78,280	5,446,440	837,890	1,421,780	2,988,986§
1924*..	2,706,570	2,169,340	156,190	77,860	6,146,700	1,073,110	1,739,780	1,594,580

* All districts. † Principal fruit-growing districts only. ‡ Including *all* fruit trees in Native Locations and Reserves (1,056,402).
§ Including *all* fruit trees in Native Locations and Reserves (964,576).
‖ All districts, including Urban Areas.

In view of the importance of the export trade in citrus fruit, and the necessity for proper organization and full information, particularly in connection with the provision of adequate shipping accommodation, a special census of citrus trees, the fruit of which is grown in the Union for export, was taken in 1922. The results were embodied in a table published in the sixth issue of this *Year Book*.

(iii) *Nuts.*—The walnut and the almond are the only nuts planted on a commercial scale in the Union. The supply of both is, however, quite unequal to the demand, and there is need and scope for heavy planting of walnut and almond trees, to the cultivation of which various districts are eminently suited. Some interest has lately been evinced in the pecan nut, which is apparently more successfully cultivated in Natal than in any other portion of the Union. Imports into the Union under the headings of *Almonds*, *Walnuts*, and *Other Edible Nuts* have averaged 632,855 lb., valued at £26,933 yearly, during the period 1910 to 1924 (cocoanuts and ground-nuts not included), the actual imports in 1924 being as follows, viz. :—Almonds, 365,767 lb., valued at £24,032 ; walnuts, 88,631 lb., valued at £3,263 ; and other edible nuts, 301,155 lb., valued at £8,367, representing a total value of £35,662.

(iv) *Canned Fruits.*—Canneries for fruit have been established principally at towns on or near the coast, partly on account of the better supply of suitable labour, and also on account of the more economical working possible in those localities. The article produced is uniformly good, and has much improved within the past few years. The chief centres of the industry are Durban, Port Elizabeth, and Cape Town, with the Paarl and Worcester districts of the Cape Province. The following table gives particulars of the quantity of canned and bottled fruit produced, imported, and consumed in the Union during the years 1915–16 to 1923–24 :—

CANNED AND BOTTLED FRUIT.—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1915–16 TO 1923–24.

YEAR.	TOTAL PRODUCTION.		IMPORTS LESS RE-EXPORTS.		TOTAL PRODUCTION LESS EXPORTS.	CONSUMPTION.
	Quantity.	Value.	Quantity.	Value.		
	lb.	£	lb.	£	lb.	lb.
1915–16...	920,000	12,325	248,618	6,071	596,215	844,833
1916–17...	1,448,000	29,319	127,188	3,347	1,106,187	1,233,375
1917–18...	1,973,789	51,825	34,323	1,303	1,561,031	1,595,354
1918–19...	2,138,214	51,941	42,670	2,297	1,094,096	1,136,766
1919–20...	2,381,638	63,644	169,513	8,805	1,237,604	1,407,117
1920–21...	2,693,541	100,809	230,153	10,800	1,586,170	1,816,323
1921–22...	4,237,002	128,157	176,304	7,386	2,529,652	2,705,956
1922–23...	3,950,808	103,219	202,303	8,110	1,992,968	2,195 271
1923–24...	3,668,324	111,288	308,919	11,546	751,750	1,060,669

(v) *Dried Fruits.*—Dried fruits are produced for home consumption throughout a large portion of the Union. Production of dried fruits as an article of commerce is confined to the south-western portion of the Cape Province, except in the case of apples, which are put out in large quantities from the eastern portion of the Orange Free State. In addition to raisins and currants, there is an increasing production of prunes, pears, apricots, and peaches. Enormous strides have been made in recent years in the production of high quality dried fruits, and the South African product now compares favourably with that of any part of the world.

The following table (*a*) gives the quantity and value of dried fruit (excluding currants, raisins, and dates) produced in, imported into, and exported from the Union during the years 1915–16 to 1923–24.

Table (*b*) shows the quantities of the more important kinds of dried fruit produced on farms in the Union during the years 1910–11 and 1917–18 to 1923–24.

(*a*) PRODUCTION, IMPORTS, AND EXPORTS OF DRIED FRUIT (EXCLUDING CURRANTS, RAISINS, AND DATES) AND CANDIED PEEL, 1915–16 TO 1923–24.

Year.	Production.			Total Value.	Imports, less Re-exports.		Exports (S.A. Produce).	
	Quantity.							
	Factory Production.	Farm Production.	Total.		Quantity.	Value.	Quantity.	Value.
	1,000 lb.	1,000 lb.	1,000 lb.	£	1,000 lb.	£	1,000 lb.	£
1915–16	—	*	—	—	292	6,997	238	8,216
1916–17	—	*	—	—	95	2,749	319	11,008
1917–18	—	4,845	4,845	—	62	2,541	546	19,457
1918–19	—	3,584	3,584	—	168	9,076	1,146	48,111
1919–20	—	2,419	2,149	—	511	25,564	1,061	56,016
1920–21	—	3,216	3,216	—	439	20,204	530	31,216
1921–22	—	6,659	6,659	—	109	3,429	1,890	47,279
1922–23	1,552	5,596	7,148	278,323†	152	4,225	4,460	92.837
1923–24	1,190	6,039	7,229	250,112†	161	4,830	4,204	82,068

* Not available. † Farm production assessed at same value per lb. as factory production.

(*b*) QUANTITY OF DRIED FRUIT PRODUCED ON FARMS IN THE UNION DURING THE YEARS 1910–11 AND 1917–18 TO 1923–24.

Year.	Apples.	Apricots.	Figs.	Peaches.	Pears.	Prunes.
	lb.	lb.	lb.	lb.	lb.	lb.
1910–11...	115,964	635,370	54,064	2,575,049	178,306	641,350
1917–18...	267,800	366,700	124,900	2,827,900	370,000	887,200
1918–19...	232,700	103,200	171,600	1,708,200	346,800	1,021,400
1919–20...	170,400	313,500	137,000	1,090,500	116.100	591,300
1920–21...	164,900	160,100	132,200	1,824,200	192,200	741,900
1921–22...	422,377	980,467	229,638	2,842,367	238,496	1,945,969
1922–23...	216.562	1,143,115	242,816	2,394,336	286,458	1,312,405
1923–24...	275,100	739,700	178,400	1,710,600	211,600	2,923,400

(vi) *Jams.*—There is considerable production of jams, jellies, fruit juices, and pulp. The export figures for the years 1910 to 1917 reveal that the possibilities of the development of this industry are important, apart from any consideration connected with the War and the consequent disturbance of ordinary commercial conditions. The following table gives particulars regarding the production, importation, and consumption of jams and jellies during the years 1915–16 to 1923–24 :—

JAMS AND JELLIES.—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1915–16 TO 1923–24.

YEAR.	TOTAL PRODUCTION.		IMPORTS LESS RE-EXPORTS.		TOTAL PRODUCTION LESS EXPORTS.	*CONSUMPTION.
	Quantity.	Value.	Quantity.	Value.		
	lb.	£	lb.	£	lb.	lb.
1915–16...	12,381,000	260,507	694,705	16,121	10,944,759	11,639,464
1916–17...	13,768,000	316,406	574,730	12,938	11,316,145	11,890,875
1917–18...	16,455,424	376,364	278,777	6,004	13,224,126	13,502,903
1918–19...	18,451,287	399,785	132,467	4,494	12,079,193	12,211,660
1919–20...	18,319,466	493,757	1,068,391	38,005	11,323,003	12,391,394
1920–21...	13,774.349	370,862	1,045,505	38,005	10,634,248	11,679,753
1921–22...	7,878,346	181,811	290,748	12,180	6,709,685	7,000,433
1922–23...	12,535,020	251,784	409,705	16,950	11,401,087	11,810,792
1923–24...	14,467,215	328,124	374,379	14,690	13,291,091	13,665,470

3. **Fruit Export Control Act, 1925.**—The promulgation of the Fruit Export Control Act, 1925, marked a further development in the control of the Fruit Industry. Provision is made for the establishment of a Board of Control whose duties shall be :

(*a*) to control the export of fruit from the Union and the order of shipment of fruit at all ports of the Union ;

(*b*) to call for and receive from fruit producers estimates and other particulars of their intended exports ;

(*c*) to call for and receive from shipowners or their representatives information respecting the amount of space available on any ship appointed to call at any port of the Union ; and

(*d*) to perform such other functions in respect of the export and shipment of fruit from the Union as may be prescribed by regulation.

4. **Inquiry into Fruit Export Trade.**—In November, 1924, a Committee of Inquiry, comprising as members Messrs. W. Lategan (Chairman), W. J. Lamont, I. B. van Heerden, and R. R. Perrot, was appointed to investigate and report upon certain matters connected with the Fruit Export Trade.

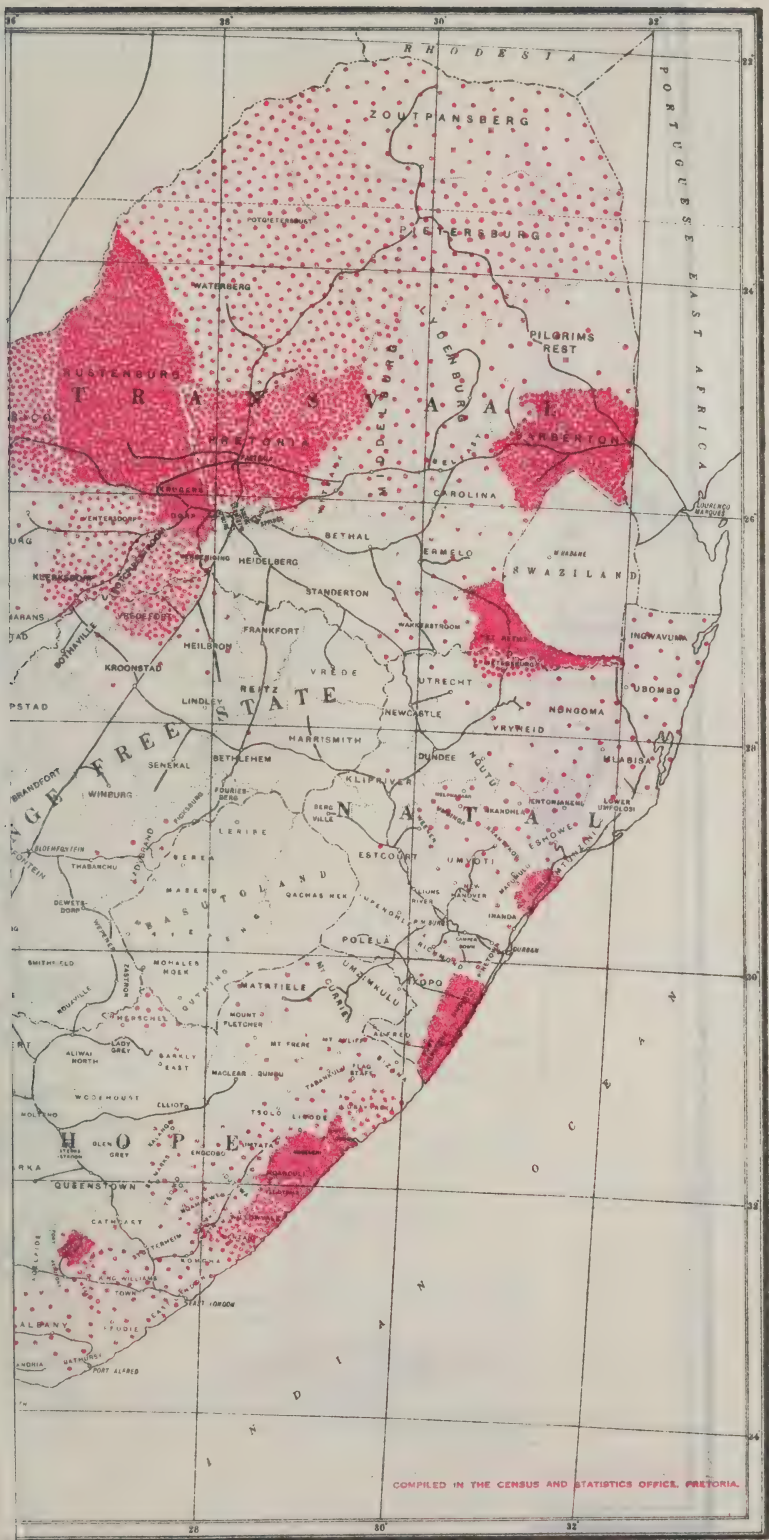
The terms of reference were—

(i) Allocation of cold chamber space for citrus fruit on steamers, as between ports and as between shippers, during the present season ; how allocations were made ; what arrangements, if any, were made between the Fruit Growers' Exchange and shipping companies for such allocations ; what has been the action of the Shipping Committee of the Fruit Growers' Exchange, and under what authority did that Committee act ; what has been the effect of any arrangements made so far as growers are concerned ; and whether the Exchange acted in the interests of the growers.

(ii) Has fan-room space on steamers been increased at any of the South African ports to the detriment of growers, owing to shipping rivalry ; and, if so, to what extent, if any, was the Exchange responsible.

(iii) The feasibility, or otherwise, of making an allocation of shipping space to each port sufficiently in advance to regulate supplies and permit of a *pro rata* allocation to individual growers ; and whether fruit should be shipped in order of priority of arrival at a port.

(iv) Make such other recommendations as may be considered necessary in the interests of successful transport of export fruit from South Africa.



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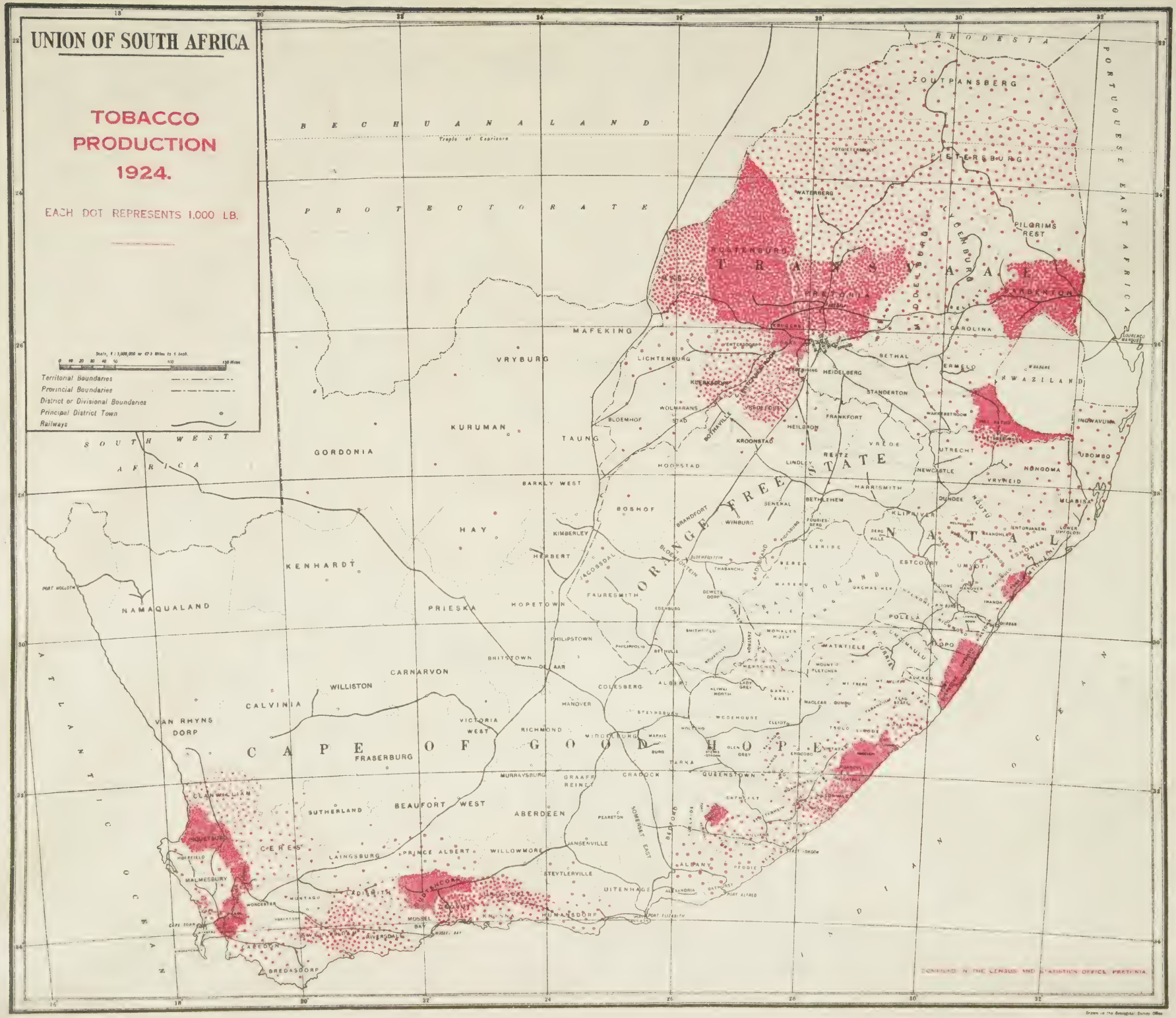

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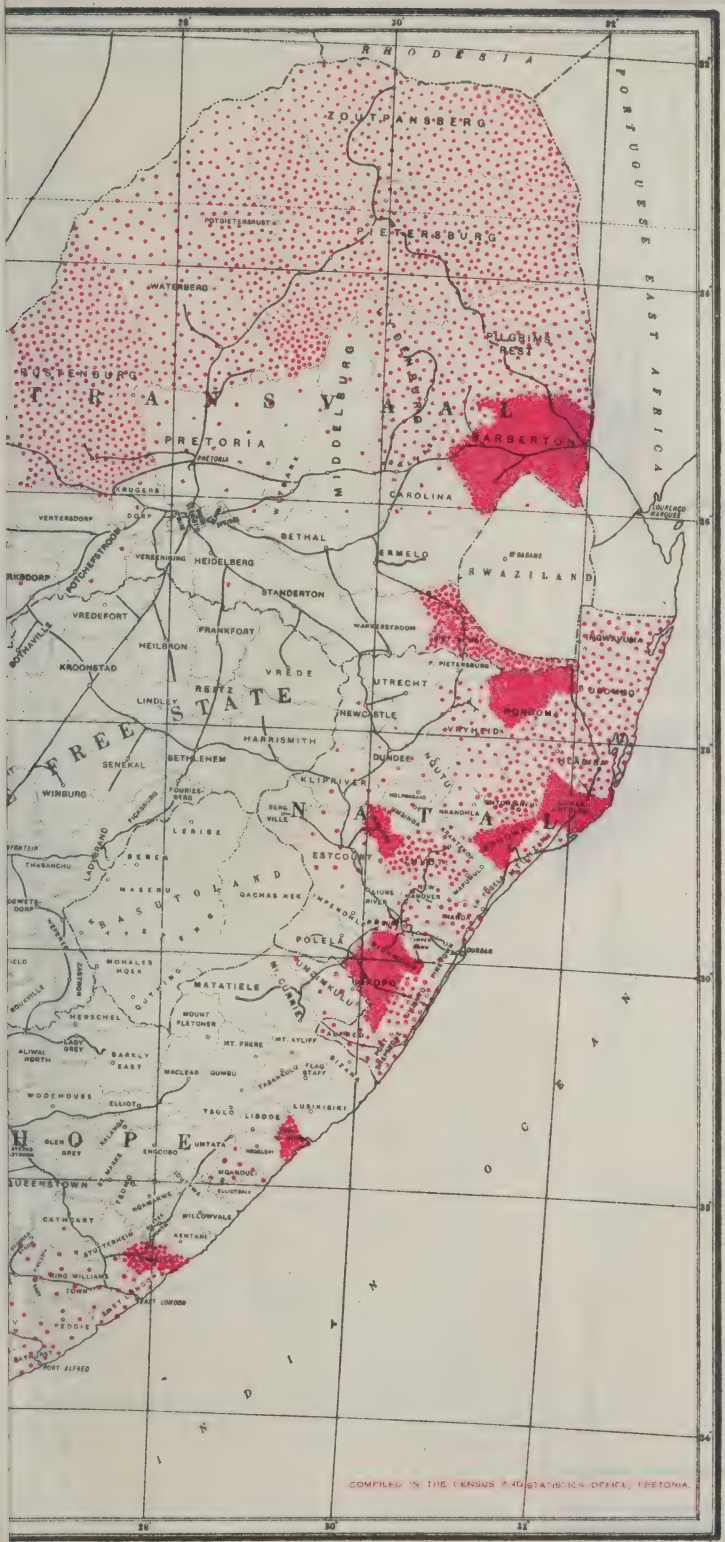

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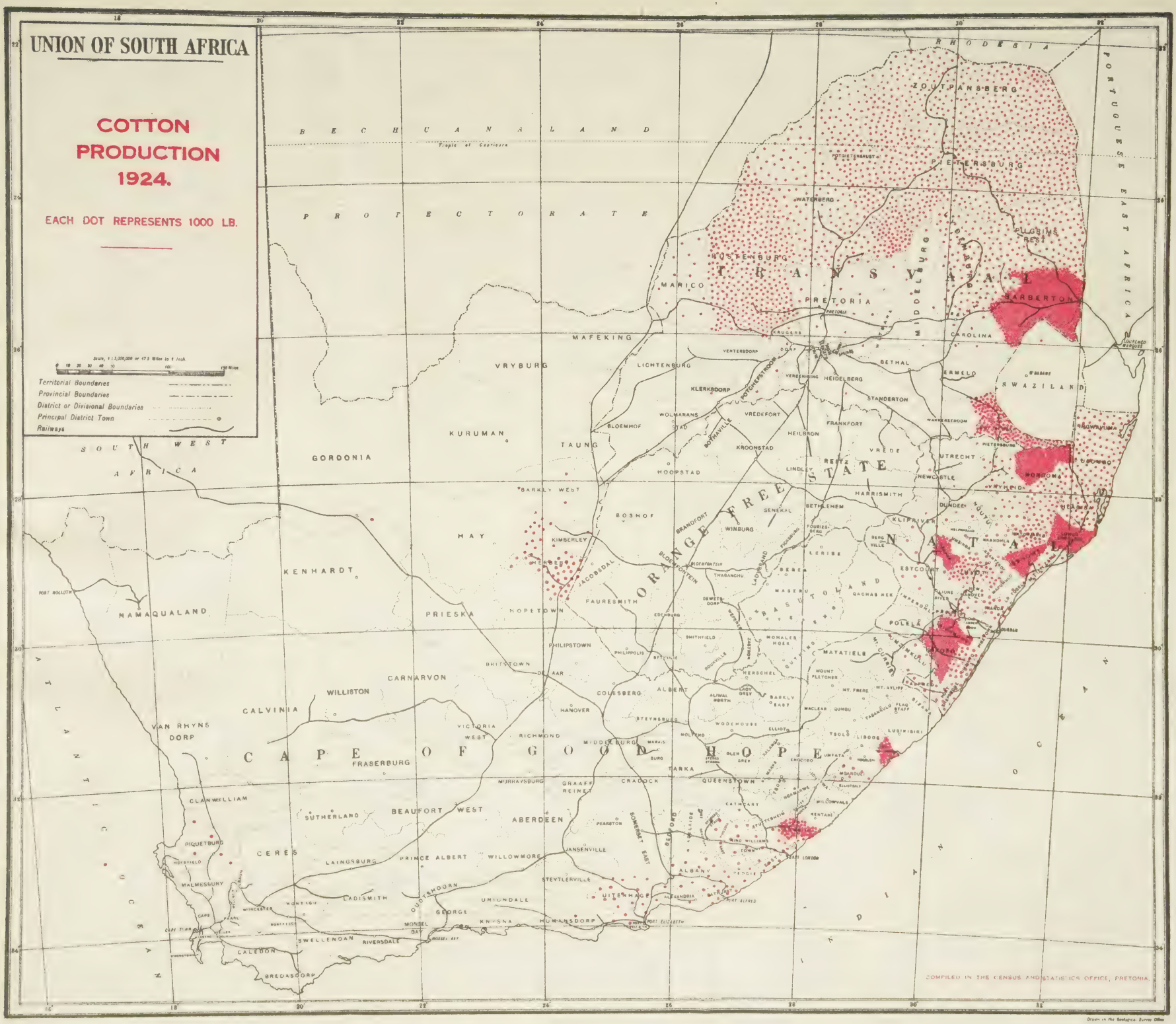

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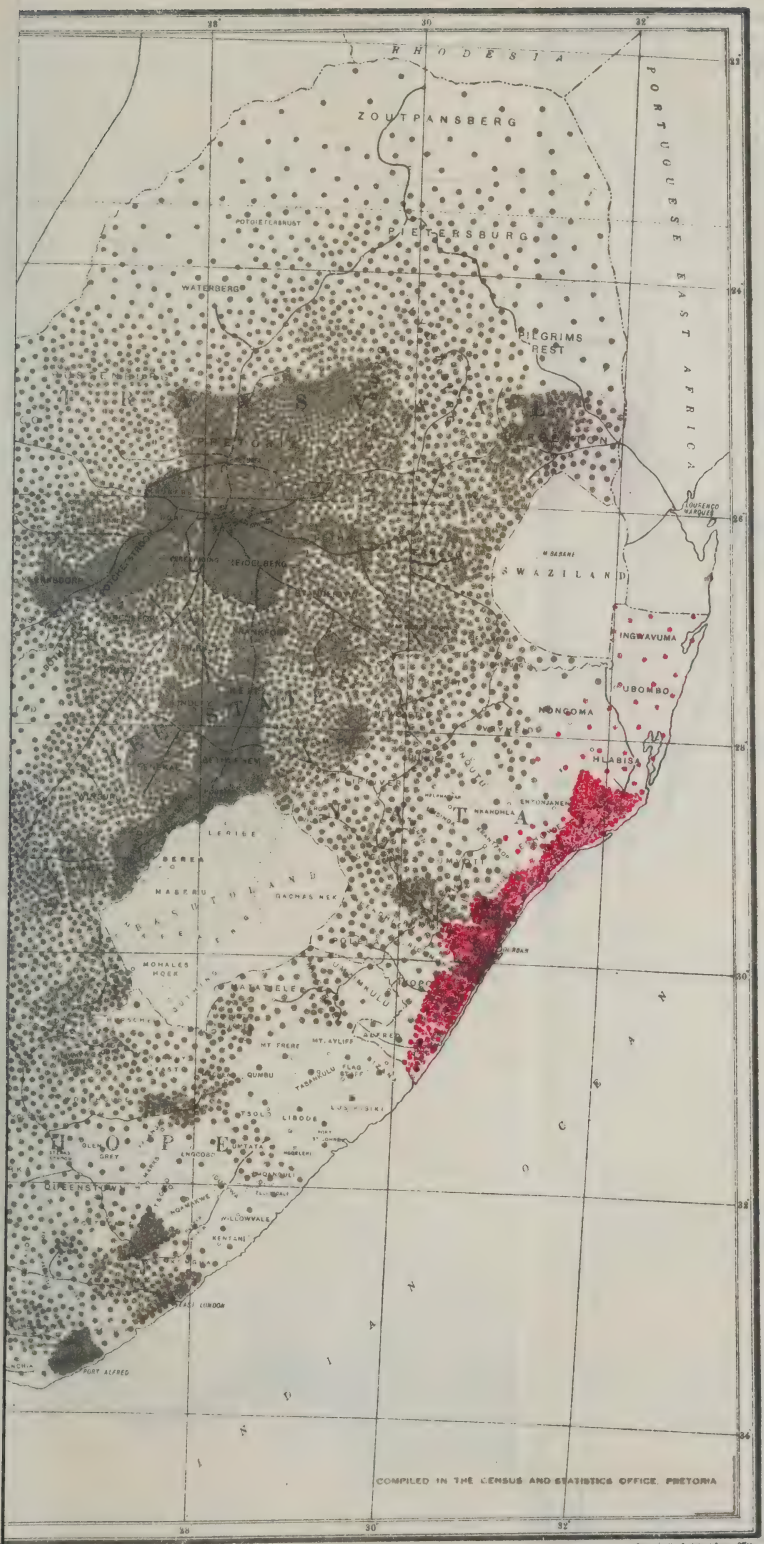

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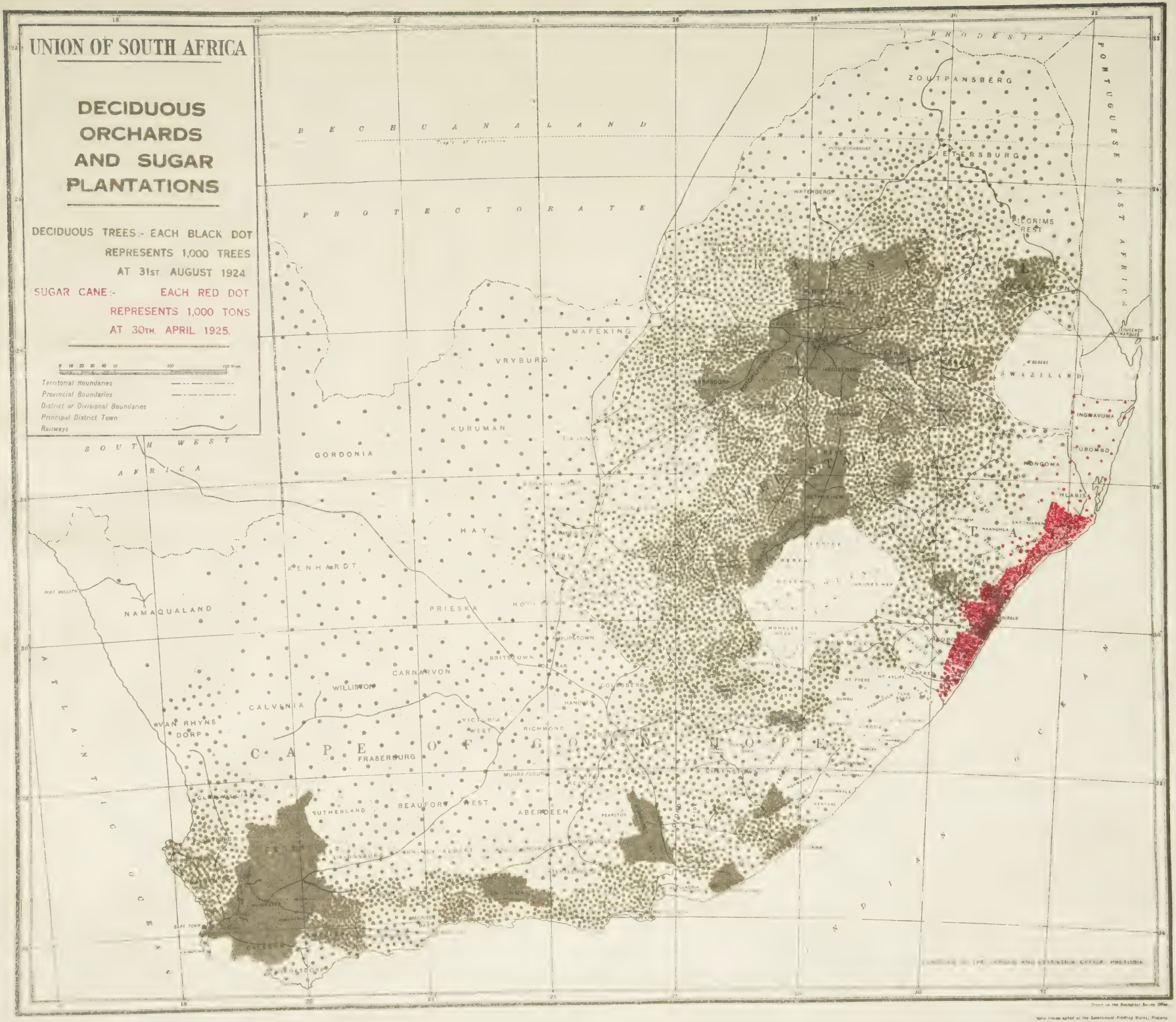
UNION OF SOUTH AFRICA
DECIDUOUS ORCHARDS AND SUGAR PLANTATIONS
DECIDUOUS TREES:- EACH BLACK DOT REPRESENTS 1,000 TREES AT 31ST. AUGUST 1924.
SUGAR CANE:- EACH RED DOT REPRESENTS 1,000 TONS AT 30TH. APRIL 1925.
Territorial Boundaries
Provincial Boundaries
District or Divisional Boundaries
Principal District Town
Railways
BECHUANALAND
PROTECTORATE
SOUTH WEST AFRICA
RHODESIA
PORTUGUESE EAST AFRICA
ZOUTPANSBERG
PIETERSBURG
PILGRIMS REST
WATERBERG
MAFEKING
VRYBURG
KURUMAN
GORDONIA
HAY
KENHARDT
PRIESKA
NAMAQUALAND
PORT NOLLOTH
CARNARVON
WILLISTON
CALVINIA
VAN RHYNS DORP
VICTORIA WEST
RICHMOND
FRASERBURG
CAPE OF GOOD HOPE
BEAUFORT WEST
SUTHERLAND
ABERDEEN
GRAAFF REINET
MURRAYSBURG
PHILIPSTOWN
BRITSTOWN
HOPETOWN
COLESBERG
HANOVER
MOHALES HOEK
MT. AYLIFF
MT. FRERE
QUMBU
TABANKULU
KENTANI
PEARSTON
CLANWILLIAM
WORCESTER
CAPE TOWN
CALEDON
SWELLENDAM
RIVERSDALE
TRANSVAAL
ORANGE FREE STATE
NATAL
SWAZILAND
INGWAVUMA
UBOMBO
MAHLABATINI
HLOBISA
MONGOMA
PIETERMARITZBURG
ESTCOURT
LADYSMITH
NEWCASTLE
HEIDELBERG
BETHLEHEM
HARRISMITH
KROONSTAD
VREDEFORT
VEREENIGING
JOHANNESBURG
PRETORIA
POTCHEFSTROOM
ZEERUST
RUSTENBURG
PIETERSBURG
LEYDSDORP
WATERBERG
PILGRIMS REST
LYDENBURG
WAKKERSTROOM
STANDERTON
BARBERTON
MBABANE
SWAZILAND
INGWAVUMA
UBOMBO
MAHLABATINI
HLOBISA
MONGOMA
PIETERMARITZBURG
ESTCOURT
LADYSMITH
NEWCASTLE
HEIDELBERG
BETHLEHEM
HARRISMITH
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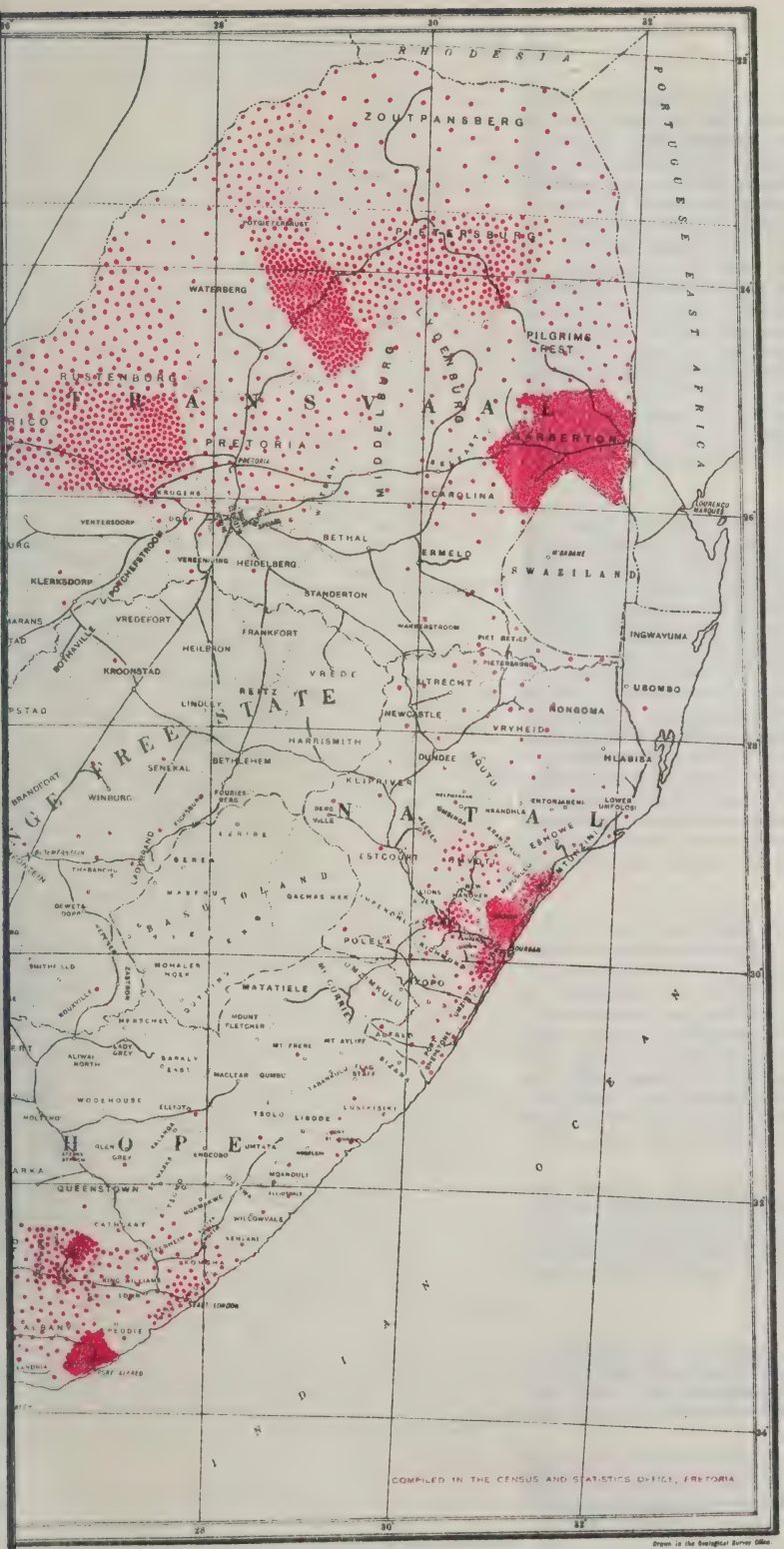
STANDERTON
BARBERTON



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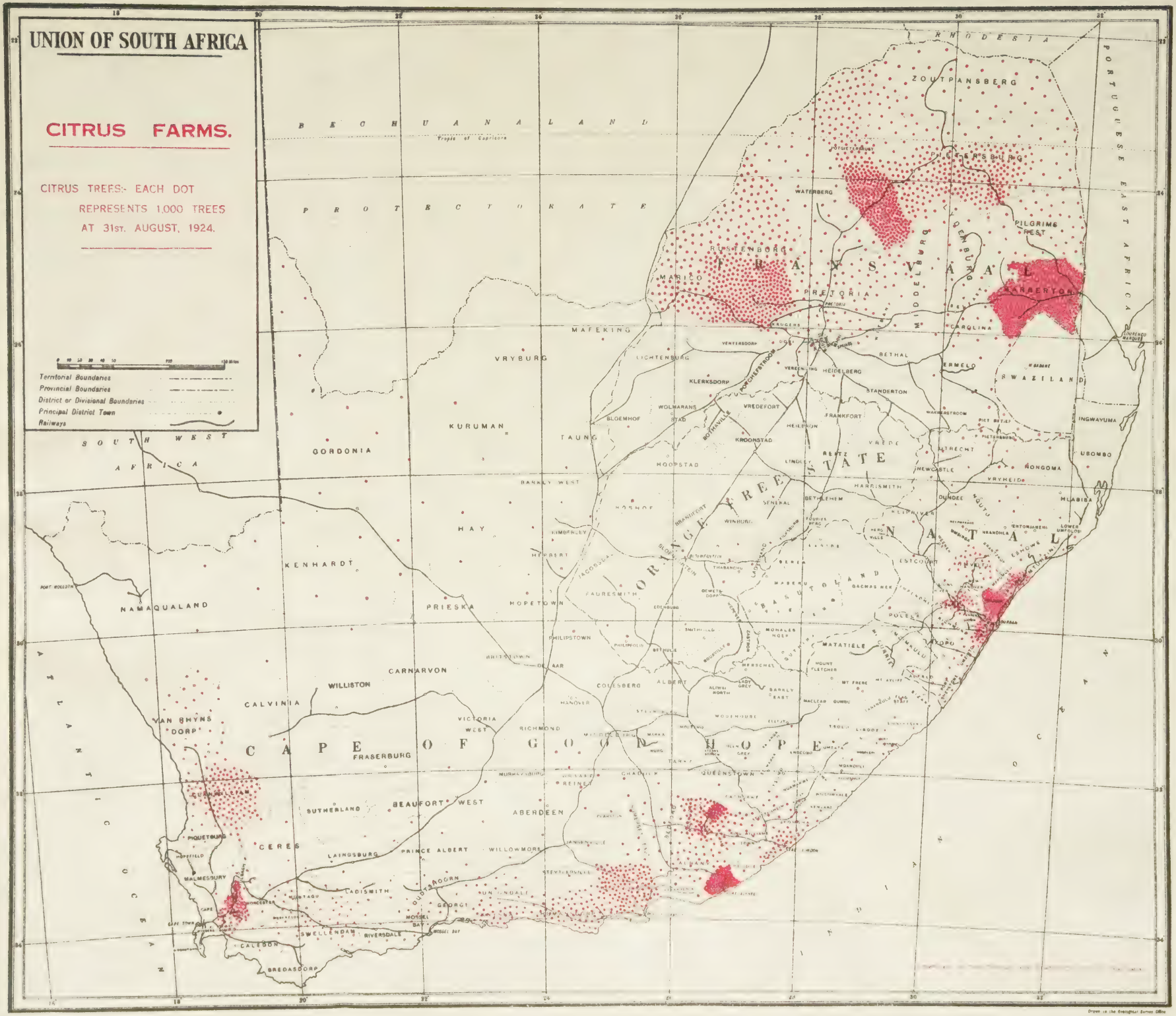

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(i) *Allocation of Cold Chamber Space.*—The Fruit Growers' Exchange through its Shipping Committee had arranged early in the season for securing adequate and proper cold storage space on the homeward bound steamers of both the South African and Australian services, and in the allotment of the space thus secured decided that all fruit received for export should be shipped strictly in priority of arrival at the port of shipment. However, by the action of the Durban agent of one of the Australian liners, who, acting independently, allotted cold storage space for a considerable consignment of fruit to private shippers, the arrangements entered into with the Exchange were invalidated and disorganized, as it released the shipping companies from their undertaking to place the available cold storage accommodation at the disposal of the Exchange and reverted to the old practice whereby space was arranged between the shippers individually and the steamship agents. The Committee of Inquiry in its report recommends that some arrangement should be made between the shipping companies and a central authority, such as the Fruit Growers' Exchange, as representing the fruit producers, to control the shipment of all fruit from South Africa, and to ensure its being shipped in some established order of precedence. The Committee was impressed with the difficulties of shipment, and expressed an opinion that a considerable amount of unnecessary criticism could be avoided if the Fruit Growers' Exchange and its Shipping Committee gave more publicity to the work being done, and the difficulties which they were endeavouring to solve.

(ii) *Fan-room Space on Steamers.*—The Committee found ample evidence that the Exchange had taken up a firm stand against utilization of fan-room space for the transport of fruit, and was therefore opposed to the views of the Division of Botany. The Union-Castle Company had fallen in with the suggestions of the Division and had provided fan-room space as being less expensive and taking up less room than cold storage chambers. The Company asked the exporters, in the circumstances, to give the system a trial, as it was obvious that the steamers which were required to convey the various products of South Africa could not be fitted up entirely with refrigerator space. It was found that up to the 31st October, 1924, less fruit had been shipped in the fan-room than in 1923, but the Committee commented upon the high proportion of fan-room space allotted to the intermediate coast ports between the 20th June and 25th July. The percentage of quantities shipped in the fan-rooms during that period were: Cape Town, 14·1; Mossel Bay, 62·2; Port Elizabeth, 46·0; East London, 37·5; Durban, nil. During this time more fruit arrived at the ports than was anticipated, and the alternative to shipping in ventilated space was the riskier expedient of placing the fruit in harbour stores possessing no suitable storage facilities. The Committee was strongly opposed to the shipment of fruit in ventilated holds, as, in their opinion, it would have the effect of retarding the fruit industry of the country, and they, therefore, recommended its discontinuance.

(iii) *Allocation of Shipping Space and Recommendations.*—The Committee found that the Exchange had endeavoured in the past to obtain information from fruit growers as to the quantity of fruit for export, but whether from apathy or opposition, few growers complied; and even of the returns received, many were found inaccurate and unreliable. Obviously the allotment of shipping space in the absence of forecasts as to quantities is impossible to arrange, and it is recommended that the rendering of returns should be made compulsory, and in the event of failure to submit an estimate, any fruit forwarded for transport, when space is limited, should be refused shipment. The Committee reported against any proposal to ship on a *pro rata* basis, for which it gives cogent reasons, and recommended the insertion of a clause in the Fruit Export Regulations that all fruit for export be shipped strictly in order of priority of arrival at the ports. No preferential treatment should be given to any kind or class of fruit.

Amongst other matters touched upon as affecting the fruit industry, the Committee mentions the lack of proper cold storage accommodation at Port Elizabeth and East London. The hinterland of the former port will produce large quantities of both deciduous and citrus fruits in the near future, and it is, therefore, desirable that the question of providing adequate and suitable storage and pre-cooling facilities should be placed in the foreground of its harbour improvements. (U.G. 19—'25).

5. **Pre-cooling Chambers, Cape Town Docks.**—The General Manager of Railways, in his Report for the year ended March, 1925, states that the Railway Administration's chambers for pre-cooling export fruit was extended during the year 1924, doubling the previous storage capacity. The chambers are now capable of dealing with 900 cubic tons of fruit.

Further works estimated to cost £134,492 are in course of construction at Table Bay Docks. The south shed on the East Pier has been reconstructed and equipped with cold storage chambers, having a capacity of 1,575 cubic tons; by bridging the gap between the north and south sheds further provision will be made, and a further storage capacity of 787 cubic tons added.

§ 7. Sugar-Cane.

1. Sugar Industry.—(i) *Historical.*—The first sugar mill was erected at Compensation, Victoria County, in 1849. By 1860 sugar-cane cultivation had made considerable progress in Alexandra, Durban, and Victoria Counties, and a number of small mills were in operation. A fair proportion of these mills were steam driven, but in a number of cases ox gear and water power were still used. The largest mill had not more than 40 horse-power.

For a number of years the progress of the industry was retarded by various factors, such as fluctuating prices, competition from Mauritius, disease among the "soft" varieties of cane, lack of suitable transport facilities, and a restricted market.

The development of the gold mining industry in the Transvaal caused some expansion of the market for Natal sugar between 1880 and 1889, and the joining up of the Natal and Transvaal railways further improved the position. The outbreak of the Anglo-Boer war led to a greater local demand with resultant higher prices and increased cultivation. About this time a number of the small mills closed down while those which continued operations, introduced modern machinery and increased their capacity.

For some years after 1904 the industry suffered severely from the dumping of German beet sugar and the acreage of cane reaped showed a steady decline. During this period, however, owing to favourable climatic conditions there was an increase in the average output of sugar per acre and the effects of German competition were thus to some extent mitigated.

In 1905 the first sugar lands were taken up in Zululand. The first harvest of cane was reaped there in 1908, when about 2,000 acres were cut. These lands and two further areas were allotted to prospective planters entering contracts to supply mills erected under ninety-nine year leases. During 1924 a further area north of Somkele was allotted partly for cotton and partly for sugar, the settlement being, however, of an experimental character, as the climatological conditions have still to be proved suitable for sugar.

With the completion of a customs convention between all the South African States in 1903, Natal obtained a position of preference against Mauritius and overseas sugar, and importations from these sources fell off as the Natal output increasingly met South African demand.

From 1910 to the outbreak of the War Natal encountered increasing competition by Mozambique in the Transvaal market. Under the terms of the Convention of 1909, sugar imported from that territory was not liable to Customs duty. This concession, combined with more favourable climatic and labour conditions, placed Mozambique in a good position to compete with Natal. Since 1914 the supplies of sugar from Portuguese East Africa have fluctuated considerably.

Mozambique manufacturers had the choice of overseas markets during the War, and when opportunity offered through conjunction of high prices and available freight, they left the less profitable market of the Transvaal to Natal. Since July, 1923, the clauses of the Convention affecting sugar have been inoperative, and during the season 1923–24 Mozambique sent no sugar to the Transvaal. By the year 1915 Natal's output had overtaken South African demand, and during the years following considerable quantities had to be exported. For the season 1923–24 the output totalled 203,360 tons, the largest in the industry's history.

The expansion of output since 1910 was due in some measure to the steady development of Zululand; but Natal proper contributed largely by bringing under cane, land which was in other crops (such as tea) and land hitherto undeveloped. In 1917–18 Natal had 128,460 acres under cane, while Zululand had 55,184 acres. In 1924–25 Natal's acreage had increased to 140,480 acres, and Zululand's to 76,492 acres. There is still available and suitable for sugar-cane, on farms presently occupied by planters, 43,000 acres in Natal and 55,000 acres in Zululand.

(ii) *Varieties of Cane Cultivated.*—Prior to the introduction of the *Uba* variety, a number of so-called "soft" varieties were cultivated. Owing to the ravages of disease, which threatened to extinguish the sugar industry, endeavours were made to obtain more suitable varieties of cane from various sugar-growing countries. Among the varieties thus introduced was the *Uba*, which is now universally grown on all the Natal sugar estates. It is very hardy, deep-rooting, drought- and disease-resisting, and gives from four ratoon crops upwards. An objection to its use from a milling point of view is that it requires considerably more power to mill, being tough and of high fibre-content. The dead leaves (trash) adhere to the cane very firmly, while in the soft varieties the trash falls away by itself. Recently a variety of *Agaul* from India has given very promising results. It is a cane similar in many respects to the *Uba* variety. Recent investigation has shown that *Agaul* and all so-called "soft" canes, of which there are only about 400 acres altogether spread over the sugar belt, are suffering from *Mosaic disease*, and measures are being taken to deal with this visitation. *Uba* is to all appearance immune to *Mosaic*, but some anxiety has been occasioned by a report that a streaked appearance of the leaf in young plants, which has been noticed for a good many years and was put down to climatic influences, is really a disease which is spreading. The industry is in course of establishing an experiment station to deal with disease problems and generally investigate all cultural and milling problems.

(iii) *Yield of Cane.*—Sugar-cane yields about 20 tons per acre in Natal every two years, but in Zululand, owing to the larger rainfall and the richer lands, the yield is somewhat higher, and the return somewhat earlier. Cane grown on the hills is reputed to have a higher sucrose-content than that grown on the flats. Improvements in milling have resulted in the lessening of the amount of cane required to produce 1 ton of sugar. In the dry winter months when the juice undergoes concentration, on the average 11 tons of cane are necessary for the production of 1 ton of sugar. Several mills have brought this figure below 10 tons. The *bagasse* is used as fuel, and the *sludge* from the filter-presses and the liming of the juice are returned to the cane-fields as manure, or disposed of for the extraction of the wax it contains.

(iv) *By-Products.*—The most important by-product, *molasses*, is now being exported, and is used locally for stock-feeding. Motor spirit, *natalite*, is also being produced at the present time from molasses, also rectified and methylated spirits, as well as commercial and anaesthetic ether. *Cane wax* is not exploited to any great extent, though there are said to be great possibilities in this direction.

(v) *Sugar Mills.*—The industry is well provided with mills, and in Natal proper the owners of these (with one or two exceptions) for the most part crush cane grown by themselves. In Zululand the mills are situated in the centre of a large area of sugar plantations, from which they obtain all the cane they can crush, the price being regulated by the price of refined sugar in Durban. This system came into force in 1905, when the Natal Government opened the coast belt of Zululand for the cultivation of the sugar-cane, and agreements were then entered into for the erection of mills and for the supply of cane to the millers by planters allotted land on the concession. In December, 1921, a Commission, under the chairmanship of Mr. W. D. Baxter, was appointed to inquire into the sugar industry, and its report, issued in May, 1922, included the following recommendations :—

(*a*) That the agreements between millers and planters in Zululand should be revised, as they are detrimental to the interests of both, in that cane is paid for by weight irrespective of the sugar it contains, and in that the same rate is paid for unburnt cane as for burnt cane.
(*b*) That mills which are able to crush all the cane available should be allowed to shorten the milling season.
(*c*) That a new basis of payment other than that of the price of first refined sugar in Durban should be provided, and that this basis should be uniform throughout Natal.

During the year 1925 the Board of Trade and Industries, following on allegations of dumping from the United States and Mozambique, conducted an investigation of a very thorough character into the industry. The report, serial No. 66, was issued on the 14th April, 1926.

The mills usually work between the months of May and December, when the sugar-content of the cane is at its optimum. At present there are twenty-one mills in operation in Natal proper and four in Zululand.

(vi) *Sugar Refineries.*—In 1922 there were two refineries in Natal which dealt with the "cargo" sugars produced by the mills. These refineries are necessary adjuncts to the industry, as there is a demand for refined sugar which, in the absence of the South African article, would be supplied by imported refined sugar. One refinery was closed down in January, 1923, but was reopened during 1924. Important additions are being made to one of the existing refining plants, while an additional refinery is in course of erection at Illovo. High-class mill sugar is now being produced which rivals refined in quality.

(vii) *Labour.*—At one time the labour employed in the sugar industry was mostly Indian, but during recent years the proportion of Indians has rapidly decreased. At present the great majority of the labourers employed both on the estates and in the mills are natives. It has been found impossible to obtain an adequate regular supply locally and arrangements have therefore been made for recruiting outside the borders of Natal. The industry employs about 40,000 natives during the cutting season.

Europeans are employed on the large estates as managers, chemists, engineers, and overseers. In the mills and refineries, according to the latest industrial census returns, over 600 Europeans are employed, mostly on work of a scientific or technical nature.

(viii) *Price of Sugar.*—The following statement gives the average price (including £1 excise duty) of first refined Natal sugar per ton (2,000 lb.) at Durban from 1910–11 to 1924–25 :—

Year.	Price.	Year.	Price.	Year.	Price.
	£ s. d.		£ s. d.		£ s. d.
1910–11.....	17 4 3	1915–16.....	19 8 6	1920–21.....	46 11 6
1911–12.....	18 1 6	1916–17.....	20 7 5	1921–22.....	29 3 5
1912–13.....	16 5 4	1917–18.....	25 9 0·9	1922–23.....	22 16 9
1913–14.....	16 1 9	1918–19.....	23 5 9·6	1923–24.....	29 12 7·6
1914–15.....	18 4 10	1919–20	26 6 4·8	1924–25.....	24 6 5

From 15th June, 1917, the price of sugar was fixed from time to time by Government Notice, first under the *Moratorium Act* and later under a special temporary Act (No. 13 of 1922), which expired on 30th June, 1923. Particulars of the prices fixed from time to time in terms of this legislation will be found in the sixth issue of this *Year Book*.

2. Statistics.—The area under cane cultivation by Europeans at 30th June, 1918, was 184,213 acres, at 30th April, 1921, 196,585 acres; at 30th April, 1923, 211,363 acres; and at 30th April, 1924, 201,170 acres.

The following table shows the quantity of sugar produced in, imported into, and consumed in the Union from the year 1910–11 :—

SUGAR.—PRODUCTION, IMPORTS, EXPORTS, AND CONSUMPTION, 1910–11 TO 1923–24.

Year.	Production.†	Net Imports.	Exports South African Produce.	Retained or Available for Consumption.	Sugar used in Manufacturing.
	Tons—2,000 lb.	Tons—2,000 lb.	Tons—2,000 lb.	Tons—2,000 lb.	Tons—2,000 lb.
1910–11.....	82,000	32,321	2,790	111,531	*
1911–12.....	92,000	27,055	2,036	117,019	*
1912–13.....	96,000	23,617	2,303	117,314	*
1913–14.....	92,153	25,939	2,073	116,019	*
1914–15.....	102,653	15,774	2,859	115,568	*
1915–16.....	113,358	5,920	3,893	115,385	*
1916–17.....	114,709	7,978	4,047	118,640	14,085
1917–18.....	104,921	15,389	4,039	116,271	16,152
1918–19.....	150,214	10,498	12,898	147,814	17,848
1919–20.....	189,183	1,359	27,495	163,047	19,059
1920–21.....	143,680	2,050	42,725	103,005	16,898
1921–22.....	148,275	17,667	36,652	129,290	13,735
1922–23.....	159,362	13,506	39,181	133,687	15,330
1923–24.....	203,360	583	36,452	167,491	18,016

* Not available.
† Figures up to 1921–22 represent sugar that went into direct consumption and from 1922–23 gross output at mills.

The following quantities of sugar were converted into syrup, treacle, and molasses in the process of refining in 1922, 1923, and 1924 :—

	1922. Tons.	1923. Tons.	1924. Tons.
Syrup.....	626	—	4,204
Treacle.....	3,429	1,957	
Molasses.....	657	598	

The following quantities of spirits were manufactured :—

Proof Gallons.	Proof Gallons.	Proof Gallons.
1,446,815	1,441,177	2,171,873

Of this the following quantities were used in manufacture :—

	Proof Gallons.	Proof Gallons.	Proof Gallons.
Rum.....	91,264	87,019	81,826
Motor fuel.....	462,501	476,868	721,983
Methylated spirit.....	280,121	326,982	346,595
Scientific and industrial purposes (including ether).....	137,985	160,923	155,671

3. Special Census of Sugar-cane Plantations.—A special census of sugar-cane plantations was taken in conjunction with the general Agricultural Census for 1923–24. The following tables summarize the results :—

(i) AREA UNDER CANE AT 30th APRIL, 1924 (EUROPEANS ONLY).

District.	Uba Variety.							Other Varieties Sugar-Cane.
	Plant Cane.	First Ratoons.	Second Ratoons.	Third Ratoons.	Fourth Ratoons.	Other.	Total.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Natal—								
Durban, including (i) Pinetown (ii) Camperdown	3,252	1,814	1,615	2,186	1,705	1,087	11,659	18
Lower Tugela....	17,302	10,183	5,771	6,253	2,309	2,965	44,783	55
Inanda, including Umvoti	12,354	8,500	5,609	5,098	3,767	3,111	38,439	23
Port Shepstone...	1,076	781	740	646	972	918	5,133	—
Umzinto.....	8,069	6,518	4,038	3,381	4,240	2,187	28,433	74
Zululand—								
Eshowe.....	1,342	482	323	425	454	84	3,110	11
Lower Umfolozi..	15,044	7,967	3,983	5,776	3,921	2,987	39,678	35
Mtunzini.....	10,702	7,578	4,283	3,773	1,798	1,582	29,716	3
TOTAL.....	69,141	43,823	26,362	27,538	19,166	14,921	200,951	219

(ii) AREA OF LAND PREPARED FOR CANE PLANTATIONS AFTER 30th APRIL, 1924, AND AREA SUITABLE FOR CANE PLANTING, BUT NOT YET PLANTED OR PREPARED FOR PLANTING. (EUROPEANS ONLY.)

District.	Old Cultivated Lands Prepared.	Virgin Cane Lands Prepared.	Land Suitable for Cane, but not yet Planted or Prepared.	Area Reaped during Season, 1923–24.	Cane Reaped during Season, 1923–24.	Cane Ploughed out during Season 1923–24.	Age of Cane Ploughed out (Average).
	Acres.	Acres.	Acres.	Acres.	Tons. (2,000 lb.)	Acres.	Years.
Natal—							
Durban, including (i) Pinetown (ii) Camperdown	500	184	4,147	5,869	127,698	1,061	8·93
Lower Tugela...	3,249	3,318	23,456	18,361	364,166	4,516	8·74
Inanda, including Umvoti	5,261	736	3,969	18,458	370,705	5,425	8·67
Port Shepstone..	58	233	3,141	2,698	41,521	178	6·86
Umzinto.....	1,550	1,369	13,396	12,914	278,327	2,138	8·93
Zululand—							
Eshowe.....	432	1,554	9,366	1,103	25,646	201	9·00
Lower Umfolozi.	2,513	3,838	18,898	17,404	395,659	4,360	7·95
Mtunzini.....	2,805	2,483	15,718	13,660	314,838	3,444	8·30
TOTAL....	16,368	13,715	92,091	90,467	1,918,560*	21,323	8·43

* This is exclusive of the Indian and native production, which, however, represents only about 6 per cent. of the total production.

§ 8. Tea, Cotton, and Tobacco.

1. **Tea.**—Tea was first grown in the area now comprising the Union as an experiment at the Durban Botanical Gardens in the year 1851. For a long period the industry was conducted on experimental lines, but without success. In 1878 greater attention was paid to tea growing, and some two thousand plants were procured from Assam by Mr. J. L.

Hulett (now Sir Liege Hulett), and planted out on his estate at Kearsney in Natal. The first crop (of 30 lb.) was raised in 1880. In 1883, tea produced on the estate referred to was valued at 2s. 9d. per lb. in London. The price of tea in South Africa at that time ranged from 2s. to 3s. 6d. per lb. From that year the tea industry advanced, and with increased production the price fell to about 1s. per lb., during the period 1904 to 1909.

The restrictions placed on Indian immigration into Natal by the Government of India in 1911 have seriously hampered the industry; and as a result of the low price of tea and the present high cost of labour, equal to about 45 per cent. of the total cost of production, the industry has contracted. Capital to the approximate amount of £350,000 is invested in the tea industry of the Union. The yield of manufactured tea in 1920–21 was 913,751 lb. In 1903 the highest total of production—2,681,000 lb.—was reached. The annual consumption of tea in the Union is in the neighbourhood of 8,000,000 lb. It is estimated that at least 15,000 acres of land suitable for tea plantations are available. The plucking season lasts from September until June. Six estates are engaged in the growing and production of tea, and it may be stated that Natal tea is particularly free from tannin.

Owing chiefly to the labour difficulties mentioned, it is found that in Natal the growing of sugar-cane is generally more profitable than the cultivation of tea, with the result that the former industry is being extended at the expense of the latter. The following table gives particulars of the area of tea plantations, the produce in green leaf and in manufactured tea, and the consumption of tea in the Union.

TEA.—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910–11 TO 1923–24.

Year (Season).	Area Cultivated.	Yield (Green Leaf).	Manufactured Tea.	Production (less Exports).	Imports. (less Re-exports).	Retained or Available for Consumption.
	Acres.	lb.	lb.	lb.	lb.	lb.
1910–11....	4,457	6,722,673	1,740,824	1,645,965	4,997,203	6,643,168
1911–12....	4,484	7,066,457	1,875,106	1,821,047	5,480,839	7,301,886
1912–13....	4,484	6,322,123	1,591,279	1,566,925	5,993,088	7,560,013
1913–14....	4,484	6,773,731	1,712,865	1,599,264	6,110,715	7,709,979
1914–15....	4,562	6,308,949	1,613,733	1,414,812	6,154,563	7,569,375
1915–16....	4,512	7,166,364	1,822,026	1,696,233	6,166,793	7,863,026
1916–17....	4,462	6,812,275	1,711,723	1,662,112	6,852,863	8,514,975
1917–18....	4,377	6,514,200	1,602,742	1,544,033	7,883,069	9,427,102
1918–19....	4,136	5,743,679	1,410,027	1,203,574	7,095,400	8,298,974
1919–20....	3,740	5,168,419	1,273,293	1,062,707	6,158,636	7,221,343
1920–21....	3,497	3,702,634	913,751	861,238	6,958,327	7,819,565
1921–22....	2,240	2,368,561	572,801	411,920	8,284,801	8,696,721
1922–23....	2,384	2,861,745	711,295	455,127	8,706,619	9,161,746
1923–24....	2,915	3,514,967	876,635	719,615	7,729,722	8,449,337

2. **Cotton.**—The cotton industry of the Union is in the earliest stage of development, but the possibilities of its extension are considerable. It may be remarked that the production of cotton in South Africa was first attempted more than fifty years ago in some of the eastern coastal districts of the Cape of Good Hope and in Natal, and that the attempt continued for a decade. Notwithstanding a good deal of encouragement by the Government and by Chambers of Commerce, however, the endeavour to establish cotton-growing as an industry failed, principally on account of labour difficulties, the high cost of ocean transport, and the lack of cultural knowledge. In 1910, when the Government of the United Kingdom and the cotton manufacturers of England held out inducements for the cultivation of cotton within the British Empire, the Government of the Union decided to make another effort to interest farmers in cotton production. A series of experiments was started in the areas considered likely to prove most suitable, and as a consequence the industry has now taken new life. Improved ginning facilities have been established, cheaper transport has been obtained, and several ginning plants are now in operation.

The year 1922–23 showed an increase of 119 per cent. over the previous year, giving a total yield of 2,400,000 lb. of lint. Since the revival of the industry, practically every year has shown a gain over the previous season. Now that there is such a widespread interest in cotton culture in the Union, if only prices remain firm, there should be a big increase in the acreage during the next few years.

It has been concluded, as a result of these years of experiment, that the *American Upland* varieties give most satisfaction, and the consignments exported to the United Kingdom usually command from one penny to threepence per lb. more than American middlings.

The following table gives figures showing the production of cotton in the Union:—

SEED COTTON (UNGINNED) GROWN IN THE UNION,* 1917-18 TO 1923-24.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Acres.	lb.	Acres.	lb.	Acres.	lb.	Acres.	lb.	Acres.	lb.
1917–18....	34	6,800	512	113,700	7,016	676,110	13	—	7,575	796,610
1918–19....	—	1,906	—	533,184	—	883,321	—	200	—	1,418,611
1919–20....	87	17,900	4,436	1,073,400	6,932	1,494,900	10	6,000	11,465	2,592,200
1920–21....	118	11,200	2,773	862,600	16,193	2,702,600	—	—	19,084	3,576,400
1921–22....	46	17,550	3,243	866,989	11,863	1,921,828	17	—	15,169	2,806,367
1922–23....	199	27,310	6,479	3,934,565	16,104	3,384,835	—	—	22,782	7,346,710
1923–24....	1,660	260,169	21,339	5,845,909	31,661	3,897,207	—	—	54,660	10,003,285

* Native locations, reserves, etc., not enumerated.

3. Tobacco.—The principal tobacco districts in the Union are the Magaliesberg and Kat River districts, which produce a light and medium tobacco of the Virginian type, such as *Joiner, Yellow Prior, Sterling, Tennessee Red,* and *Swazie*; the Potchefstroom, Vredefort, Piet Retief, Oudtshoorn, and Piquetberg districts, which produce a medium to heavy type, such as *Tennessee Red, Sterling, Clarksville Heavy,* and *Swazie*; the Stellenbosch, Wellington, and Tulbagh districts, which produce Turkish tobacco such as *Soulouk*; and Natal, in which Province a medium dark type, largely consumed in the manufacture of cigars, cheroots, and a cheap grade of pipe tobacco, is produced.

The tobacco and tobacco manufacturing industries have experienced considerable change in the class of leaf and manufactured article required by the public during the past ten to fifteen years, i.e. from the heavy type tobacco to the light cigarette tobacco leaf. In the earlier days the principal demand was for dark and medium tobacco, suitable for ultimate conversion into pipe tobacco and snuff. A fairly large percentage of the crop was put up by the farmers into roll tobacco, the rolls being converted into pipe or snuff tobacco by the consumer. There is still a considerable quantity of roll tobacco produced, both by the farmers and by factories. During more recent years factories for the manufacture of cut pipe tobacco and cigarettes have been established throughout the Union, and an increasing demand for tobacco of light or medium colour and fine or medium texture has arisen. During this period the manufacture of cigars and cheroots has made some progress, and several small factories are in operation. This factor has encouraged the production of a type of leaf suitable to the manufacture of cigars and cheroots. Moreover, cigarettes made from locally grown Turkish tobacco have become very popular, and the production of colonial Turkish leaf has been firmly established. Prior to the European War a considerable quantity of tobacco was imported, comprising Sumatra for cigar wrappers, and Turkish and Virginian for cigarettes. There are five tobacco co-operative societies at present in the Union registered under the *Co-operative Societies Act*; three of these have unlimited liability and two limited liability. All five embody the principles of co-operation. Only *bona fide* tobacco farmers may be members of the co-operative societies or hold shares in the tobacco companies. All the members share *pro rata* the profits accruing after deduction of working costs, and members are required to deliver their tobacco crops to the organization.

The Rustenburg Farmers' Co-operative Society was inaugurated in 1911 and has been completely successful and of great value to the tobacco industry.

The Western District Warehouse Association of Paarl, Cape of Good Hope, which has been in existence for nine years, has been of considerable assistance to the Turkish tobacco farmers, and has succeeded in putting on the market a matured article which has much improved the position of the manufacturers of colonial Turkish cigarettes. The association handles annually some 250,000 to 600,000 lb. of tobacco.

The Vaal River Tobacco Farmers' Company, Ltd., was inaugurated in 1918, and was converted into a co-operative company in 1921.

The spread of a bacterial disease known as wildfire (*Bacterium tabacum*) has caused considerable loss to the farmers, amounting probably to 10 per cent. of the 1922 crop.

The following table gives particulars as to tobacco grown in the Union :—

TOBACCO GROWN IN THE UNION, 1911 AND 1918 TO 1924.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Native Locations, Reserves, Etc.	Union.
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.	Yield.	Yield.
	Acres.	lb.	Acres.	lb.	Acres.	lb.	Acres	lb.	lb.	lb.
1911..	4,411	3,767,179	1,062	2,685,037	11,495	7,701,774	2,396	807,209	*	14,961,199
1918..	7,427	4,466,900	1,096	515,400	13,569	6,928,900	1,033	591,400	2,428,553	14,931,153
1919‡.	—	4,776,065	—	613,715	—	8,121,930	—	671,219	—	14,182,929†
1920..	6,367	3,602,000	1,729	730,400	16,733	6,923,500	980	388,400	—	11,644,300†
1921..	8,121	5,007,900	1,740	910,900	15,711	8,462,340	990	625,100	1,614,400	16,620,640
1922..	5,619	3,403,945	468	221,537	12,428	5,830,317	809	357,661	—	9,813,460†
1923..	5,920	3,070,396	844	392,572	12,200	4,972,481	337	131,671	1,104,376	9,671,496§
1924..	7,321	4,242,815	1,162	652,231	12,822	5,668,883	330	112,615	729,818	11,406,362§

* Included in Provinces. † Exclusive of tobacco produced in Native Locations, etc., which amounted to 2,428,553 lb. in 1918, and 1,614,400 lb. in 1921. ‡ Area not enumerated.
§ Including Turkish Tobacco, 1923, 518,768 lb.; 1924, 816,099 lb. Before 1923 Turkish Tobacco was included with other tobacco.

§ 9. Valuation of Agricultural and Pastoral Production and Prices of Farm Products.

1. **Valuation.**—The following statement gives the estimated value of the agricultural and pastoral production of the Union for the seasons 1917–18 to 1923–24. The valuation is based upon the average wholesale or open market prices for the Union in each season. The estimated value of fodder crops used on farms has been deducted. A separate valuation at *farm* prices was effected for the years 1920–21, 1922–23, and 1923–24, and amounted to £48,673,000, £53,293,000 and £54,961,000 respectively. Valuations on this basis are being effected for preceding and following years :—

VALUATION OF AGRICULTURAL AND PASTORAL PRODUCTION, AT WHOLESALE AND OPEN MARKET PRICES, 1917–18 TO 1923–24.

Union.		Provinces, 1920–21. (Complete Census)	
Season.	Value.	Province.	Value.
	£1,000		£1,000
1917–18	63,559	Cape of Good Hope	26,819
1918–19	67,088	Natal	9,826
1919–20	95,596	Transvaal	14,155
1920–21	62,233	Orange Free State	11,433
1921–22	55,042		
1922–23	67,989		
1923–24	67,263	Union	62,233

2. **Market Prices of Farm Products.**—The subjoined table reflects the average prices of farm products (wholesale or open market) in the Union during the years 1918 and 1920 to 1924 :—

MARKET PRICES OF FARM PRODUCTS, 1918, AND 1920 TO 1924.

Produce.	1918.	1920.	1921.	1922.	1923.	1924.
Wheat per bag (200 lb.)	36s. 3d.	63s. 0d.	33s. 0d.	25s. 3d.	25s. 10d.	26s. 10d.
Rye, per bag (200 lb.)	26s. 7d.	37s. 9d.	27s. 10d.	16s. 1d.	17s. 2d.	20s. 10d.
Barley, per 100 bundles	6s. 11d.	9s. 4d.	12s. 10d.	7s. 10d.	7s. 0d.	17s. 0d.
Barley, per bag (150 lb.)	11s. 4d.	27s. 7d.	17s. 3d.	12s. 6d.	11s. 11d.	14s. 6½d.
Oats, per bag (150 lb.)	13s. 11d.	28s. 4d.	13s. 0d.	12s. 1d.	12s. 0d.	12s. 8d.
Oat-hay, per 100 lb.	6s. 1d.	13s. 7d.	6s. 1d.	5s. 10d.	5s. 7d.	6s. 9d.
Manna Seed, per bag (100 lb.)	19s. 6d.	44s. 0d.	36s. 6d.	16s. 4d.	14s. 8d.	17s. 5d.
Manna, per 100 lb.	5s. 4d.	7s. 10d.	5s. 6d.	3s. 8d.	3s. 6d.	4s. 8d.
Maize, per bag (200 lb.)	10s. 8d.	24s. 10d.	12s. 4d.	10s. 11d.	14s. 5d.	15s. 8d.
Kaffir-corn, per bag (200 lb.)	16s. 0d.	29s. 0d.	15s. 6d.	14s. 10d.	18s. 9d.	16s. 1d.
Potatoes, per bag (150 lb.)	9s. 7d.	30s. 11d.	16s. 4d.	11s. 0d.	15s. 2d.	17s. 1d.
Sweet Potatoes, per bag (150 lb.)	6s. 9d.	11s. 10d.	9s. 10d.	6s. 3d.	9s. 7d.	9s. 7d.
Peas (dried), per bag (200 lb.)	34s. 0d.	42s. 8d.	34s. 8d.	31s. 0d.	28s. 11d.	32s. 8d.
Beans (dried), per bag (200 lb.)	34s. 2d.	50s. 10d.	41s. 0d.	26s. 6d.	33s. 0d.	35s. 2d.
Onions, per bag (120 lb.)	8s. 7d.	26s. 6d.	14s. 3d.	11s. 0d.	10s. 0d.	11s. 3d.
Sunflower Seed, per bag (100 lb.)	7s. 1d.	20s. 7d.	13s. 0d.	7s. 5d.	10s. 11d.	9s. 5d.
Bush Tea, per lb.	4d.	4d.	4d.	4d.	4d.	4d.
Tobacco (Turkish), per lb.	2s. 3d.	2s. 3d.	2s. 5d.	2s. 3d.	2s. 6d.	2s. 4d.
Tobacco (other), per lb.	6d.	7½d.	9d.	6d.	5½d.	6d.
Tea (Green Leaf), per lb.	1¾d.	1¾d.	1½d.	2d.	1½d.	2d.
Cotton (Unginned), per lb.	4d.	2d.	2¾d.	3d.	3¾d.	4¼d.
Chicory, per 100 lb.	32s. 6d.	20s. 0d.	15s. 0d.	20s. 0d.	25s. 0d.	12s. 6d.
Monkey Nuts, per 100 lb.	15s. 2d.	24s. 6d.	11s. 0d.	11s. 5d.	13s. 0d.	14s. 9d.
Sugar-cane, per ton	18s. 4d.	19s. 10d.	33s. 0d.	19s. 4d.	17s. 3d.	21s. 0d.
Teff Grass, per 100 lb.	4s. 0d.	9s. 1d.	4s. 8d.	4s. 7d.	4s. 1d.	5s. 3d.
Pumpkins, each	6d.	6d.	6d.	6d.	6d.	6d.
Honey, per lb.	2s. 0d.	1s. 10d.	1s. 10d.	1s. 10d.	1s. 10d.	1s. 10d.
Butter, per lb.	1s. 7d.	2s. 2d.	2s. 2d.	1s. 10d.	1s. 5d.	1s. 8d.
Cheese, per lb.	1s. 1d.	1s. 4d.	1s. 4d.	1s. 0d.	1s. 0d.	1s. 1½d.
Milk for consumption, per gallon	1s. 8d.	2s. 10d.	1s. 10d.	1s. 8d.	1s. 11d.	1s. 11d.
Butter Fat, 1st Grade, per lb.	1s. 6d.	2. 4d.	2s. 0d.	1s. 4d.	1s. 4d.	1s. 6d.
„ „ 2nd „ per lb.	1s. 4d.	2s. 3d.	1s. 10d.	1s. 2d.	1s. 3d.	1s. 5d.
„ „ 3rd „ per lb.	1s. 2d.	2s. 1d.	1s. 8d.	1s. 0d.	1s. 2d.	1s. 3d.
Bacon and Ham, per lb.	1s. 5d.	1s. 10d.	1s. 6d.	1s. 6d.	1s. 2d.	1s. 3d.
Wool, per lb.	16d.	29d.	8d.	10d.	17d.	20½d.
Mohair, per lb.	20d.	19¾d.	8·17d.	10¾d.	15d.	20d.
Ostrich Feathers, per lb.	17s. 8d.	49s. 6d.	29s. 4d.	29s. 2d.	20s. 0d.	19s. 1¾d.
Apples (dried), per lb.	10d.	1s. 1d.	11d.	1s. 1d.	8d.	10½d.
Apricots (dried), per lb.	10½d.	1s. 7d.	10½d.	1s. 4d.	9d.	10d.
Figs (dried), per lb.	10½d.	1s. 6d.	9d.	10½d.	9d.	9d.
Peaches (dried), per lb.	8d.	11d.	7½d.	8d.	7d.	8d.
Pears (dried), per lb.	1s. 0d.	11d.	10d.	1s. 0d.	10d.	10½d.
Prunes (dried), per lb.	9d.	10d.	9d.	9d.	7d.	5½d.
Raisins (stalk) per lb.	10d.	1s. 2d.	9d.	1s. 3d.	6d.	7d.
Raisins (loose), per lb.	5d.	6d.	5d.	6½d.	3d.	3½d.
Raisins (Sultanas), per lb.	9½d.	9d.	8d.	8d.	6d.	5d.
Currants, per lb.	1s. 1d.	1s. 4d.	1s. 3d.	1s. 0d.	10d.	10d.

§ 10. Farms, Farm Labour, and Agricultural Implements.

1. **Number, Tenure, and Area of Farms.**—The following table gives particulars of farms enumerated at the Census of Agricultural and Pastoral Production from 1921 (excluding native locations, reserves, etc.).

NUMBER AND AREA OF FARMS, AGRICULTURAL HOLDINGS, PLANTATIONS, AND FOREST RESERVES (EXCLUDING NATIVE LOCATIONS, RESERVES, ETC.), APRIL, 1921, 1922, AND AUGUST, 1923 AND 1924.

Province.	Number of Occupied Farms at			Number and Area of Occupied Farms at 31st August, 1924.	
	30th April, 1921.	30th April, 1922.	31st Aug., 1923.	Number.	Acres.
Cape of Good Hope	31,950	34,221	34,142	34,809	124,814,440
Natal	8,697	9,314	9,594	9,687	10,396,641
Transvaal	22,741	24,471	24,869	25,331	36,848,890
Orange Free State	18,044	17,236	17,318	18,513	30,191,188
TOTAL	81,432	85,242	85,923	88,340	202,251,159

A table giving the area of farms, the area cultivated, irrigated and irrigable at the 30th April, 1921, will be found in the sixth issue of this *Year Book*.

At the 30th April, 1922, the acreage under cultivation (exclusive of native locations reserves, etc., not enumerated) was: Cape, 3,131,719; Natal, 1,074,235; Transvaal, 3,289,664; Orange Free State, 3,195,660; Union, 10,691,278.

At the 31st August, 1923, the acreage under cultivation was: Cape, 2,914,359; Natal, 998,492; Transvaal, 2,862,428; Orange Free State, 3,086,684; Native Locations, Reserves, etc., 3,331,711; Union, 13,193,674.

At the 31st August, 1924, the acreage under cultivation (exclusive of native locations, reserves, etc., not enumerated) was:—Cape, 3,114,105; Natal, 1,057,870; Transvaal, 3,053,901; Orange Free State, 2,870,303; Union, 10,096,179.

2. **Employees on Farms.**—Particulars were given in the sixth and previous issues of this *Year Book*, as to the average number, sex and race of employees on farms, excluding native locations, reserves, etc., during the year 1917–18.

3. **Agricultural Implements, Machinery, etc.**—Particulars as to agricultural implements and engines employed on farms in the years 1918 and 1921 will be found in the sixth issue of this *Year Book*.

§ 11. Fertilizers.

1. **General.**—The *Fertilizers, Farm Foods, Seeds, and Pest Remedies Act* (No. 21 of 1917) regulates the importation and sale of fertilizers in the Union. "Fertilizer" is defined as any substance containing, or purporting to contain as chemical constituents thereof, nitrogen, phosphoric oxide, potash, or lime in a form or combination available as plant food, and sold or intended for sale for the purpose of fertilizing the soil or supplying nutriment to plants, and the sale of an article not containing these ingredients in a suitable form is prohibited.

From analyses of South African soils it has been established that they are for the most part deficient to a smaller or greater degree in the four essential elements enumerated, and it is these necessary constituents which have to be supplied by means of fertilizers.

Phosphoric Oxide, in which the deficiency is largest, is added to the soil chiefly in the form of superphosphates, basic slag, and bone preparations. Considerable phosphatic deposits occur in various parts of the Union (Weenen, Saldanha Bay, Kuruman, Murchison Range, and Bethlehem), and in recent years the production of superphosphates has been undertaken on a very considerable scale. At Somerset West, in the Cape Province, and at Umbogintwini and other places in Natal, there are factories said to be capable of an output more than sufficient to satisfy the present South African demand for superphosphates and bone manure. *Lime* deposits are found extensively in the Union, and a suitable form for fertilizer purposes occurs in the Marico District. The principal varieties of *nitrogenous* fertilizer in use in South Africa are sulphate of ammonia, nitrate of potash, blood-meal, meat-meal, and different forms of guano. For the most part these are locally produced, the municipal abattoirs of Durban, Cape Town, Pretoria, and Johannesburg being responsible for the preparation of considerable quantities of blood-meal and meat-meal, while guano (bird, whale, fish, and bat) is extensively worked up and used. *Potassic* fertilizers are imported in the shape of salts of potash, and there is also a considerable production in the Union, burnt kraal manure ("Karroo ash") being largely utilized in this connection.

The following tables give (i) the imports into the Union of various types of fertilizer during a series of years, and (ii) the factory production of fertilizers in the Union, as shown in recent Industrial Censuses:—

(i) MANURES AND FERTILIZERS—IMPORTS, 1922 TO 1924.

Description.	1922.		1923.		1924.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
Basic Slag	3,300	11,873	8,023	21,060	14,281	39,482
Bone Manures	2	25	1,260	7,411	3,050	15,928
Guano	119	375	730	1,293	295	811
Nitrate of Soda	25	373	66	777	4	236
Raw Phosphates	8,287	14,255	14,922	19,787	21,984	20,680
Potash Manures	904	10,223	2,521	21,511	3,616	26,529
Sulphate of Ammonia	3	55	264	3,696	537	5,103
Superphosphates	14,038	58,710	23,972	81,355	42,888	122,443
Whale Manure	72	308	—	—	34	225
Other	443	2,658	2,133	11,788	6,822	35,407
TOTAL	27,193	98,855	53,891	168,678	93,511	266,844

(ii) FACTORY PRODUCTION OF FERTILIZER MATERIALS—INDUSTRIAL CENSUSES, 1921–22 TO 1923–24.

Description.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
Nitrogenous Organic Fertilizers	424	3,633	526	3,669	554	4,620
Superphosphates	10,394	59,006	18,156	85,481	*	*
Bone Meal	11,213	110,807	11,357	99,012	11,315	83,172
Mixed Fertilizers, containing—						
Nitrogen and phosphorus	5,502	47,958	5,925	45,445	8,974	60,810
Potassium and phosphorus	*	*	*	*	352	1,755
Nitrogen, potassium, and phosphorus	18,321	180,253	11,247	96,734	16,742	113,804
Other	—	115,342	—	156,134	—	200,790
TOTAL VALUE.....£	—	516,999	—	486,475	—	464,960

* Less than four establishments operating.

2. **Guano.**—This fertilizer, which is obtained from the group of Government Guano Islands situated along the west and south coasts of South Africa, is sold in a pulverized form, and is used principally in the cultivation of cereals and vegetables, but is also now being extensively employed in the treatment of young orchards and vineyards as well as the growing of maize and sugar-cane. Its principal chemical constituents are nitrogen, potash, phosphoric oxide, and lime, and, as the composition of the deposits obtained from the various islands varies materially in certain essentials, all collections are systematically mixed so as to obtain an approximately uniform grade of article.

The average analysis of guano sold during the years 1921 to 1924 was :—Nitrogen, 10·0 per cent.; potash, 1·8 per cent.; phosphoric oxide water soluble, 3·2 per cent.; phosphoric oxide soluble in 2 per cent. citric solution, 10·8 per cent.; total phosphoric oxide, 11·4 per cent.; and lime, 10·3 per cent. Guano is now being sold by the Government at £7 per ton, which is below its commercial value. There is a very large and increasing local demand for guano, and, as the supply is limited, no exportation to places beyond the limits of the Union is permitted.

Further particulars of the Government guano deposits will be found in the sixth and previous issues of this *Year Book*.

QUANTITY OF GUANO PRODUCED, 1911 TO 1924.

Year.	Colonial Group of Islands.	Northern or Ichaboe Group of Islands.	Total.
	Tons.	Tons.	Tons.
1911–15 (average)	2,618	4,145	6,763
1916–20 (average)	3,223	5,044	8,267
1921	3,275	5,240	8,515
1922	3,394	6,000	9,394
1923	3,515	6,581	10,096
1924	1,861	6,660	8,521

The following by-products of the Government Guano Islands may be conveniently noted here :—

Penguin Eggs.—The collection of penguin eggs is at present restricted to certain portions of Dassen Island only, from whence, on an average, about 500,000 eggs are obtained annually. The collection, disposal, and distribution of penguin eggs are undertaken by Government contractors.

Seal Skins.—The number of seal skins and the quantity of oil secured annually vary considerably according to circumstances. The average number of skins taken during the three years 1921 to 1923 was 10,960 per annum. These skins are shipped to the United Kingdom, and sold by auction on the London markets. The sealing industry is largely in the hands of the Union Government, and private enterprise is only permitted on certain specified islands and rocks on the South African coast reserved for that purpose.

§ 12. Agricultural Co-operation.

A brief history of the development of agricultural co-operation in the various Provinces of the Union is given in the sixth and previous issues of this *Year Book*.

There has recently been a great development of the co-operative movement in every Province of the Union, and farmers of all kinds are keenly interesting themselves in the

organization of co-operative marketing associations. A new Co-operation Act to regulate the constitution of co-operative agricultural societies and companies throughout the Union was passed during the 1922 Session. The *Co-operative Societies Act* (No. 28 of 1922) repeals all former co-operative laws and provides for the appointment of a Registrar of Co-operative Societies and for the formation and registration of agricultural co-operative societies with unlimited liability, agricultural co-operative companies with limited liability, and co-operative trading societies with limited liability. The Act further provides for the formation of central and federal co-operative companies, with objects generally similar to those of the co-operative societies and companies. Provision is also made in the Act for the management of societies or companies by boards of directors, and for the dissolution, voluntary or compulsory, of societies and companies. Lists of the names and addresses of directors and members of co-operative companies and societies must be transmitted to the Registrar. All the provisions of this Act are applied to every co-operative agricultural society registered under previous Acts. The First Schedule of the Act contains model regulations, which may be adopted by co-operative societies and companies. An Amending Act (No. 38 of 1925) was passed during the 1925 Session of Parliament and came into operation on the 30th July, 1925.

PARTICULARS OF REGISTERED CO-OPERATIVE SOCIETIES AND COMPANIES IN ACTIVE OPERATION AT 31st DECEMBER, 1923 AND 1924.

Description.	At 31st December, 1923.		At 31st December 1924.	
	Number.	Membership.	Number.	Membership.
Agricultural Societies (unlimited liability)	108	14,534	140	14,662
Agricultural Companies (limited liability)	92	18,147	105	15,354
Trading Societies (limited liability)	10	8,036	11	8,241
TOTAL	210	40,717	256	38,257

§ 13. Agricultural Schools and Experiment Farms.

1. **Description of Establishments.**—Schools of Agriculture and Experiment Farms are established at several points in the Union. A brief description of these schools and farms and the purpose which they serve is given hereunder :—

(i) *Elsenburg* (*Mulder's Vlei, Cape of Good Hope*).—This was established in 1898 and is the oldest institution of its kind in the Union. The area of the farm and experiment station is approximately 2,600 acres, of which 900 acres are under cultivation. About 125 acres are devoted to vineyards and orchards. The special features of this institution are horticulture, viticulture and wine-making, cereal, and tobacco (Turkish) growing and dairying. An Oenological Institute has been erected here, at a cost of £6,000, for the study of wine-making. The area of operation includes the coastal district from Namaqualand to Knysna, and the districts of Ceres, Worcester, Robertson, Paarl, Tulbagh, and Montagu.

(ii) *Grootfontein* (*Middelburg, Cape of Good Hope*).—This station was established in 1911 on a large farm, in extent about 25,000 acres, acquired from the Imperial military authorities. The special features here are agriculture (including irrigation) under Karroo conditions, the rearing of ostriches, Merino sheep, and Angora goats. The area of operation embraces that portion of the Cape Province lying south of the Orange River (excluding the area served by Elsenburg) and the Transkeian Territories (excluding East Griqualand).

(iii) *Cedara* (*Natal*).—The Cedara experiment farm was established in 1902 and the school was opened in 1906. The farm is approximately 2,000 acres in extent. Cattle and farm dairying, maize, forestry (including wattle growing) form the special features at this experiment station, and the area of its operation extends to the whole of the Natal Province and East Griqualand.

(iv) *Potchefstroom* (*Transvaal*).—This experiment farm was established in 1902 and the school was opened in 1909. The farm comprises about 4,000 acres, some 800 acres of which are under cultivation. Matters relating to agriculture representative of high veld conditions, the cultivation of crops under irrigation and otherwise, stock breeding, and the growing of maize and other cereals are special features of this establishment, and its area of operation covers the whole of the Transvaal Province.

(v) *Glen* (*Orange Free State*).—Prior to the constitution of the Union no agricultural school had been established in the Orange Free State, and it was found that the existing Government farms were, in several important respects, unsuitable for such a purpose. In

1912, a farm of approximately 4,000 acres in extent was acquired at Glen, on which an agricultural school and experiment station has been established. The school was opened for students in February, 1919. The area of operation comprises the whole of the Orange Free State, that portion of the Cape Province lying north of the Orange River, and British Bechuanaland.

2. **General Particulars.**—All the above institutions are in close proximity to stations on main lines of railway and are fairly central as regards the areas they serve.

The farms on which the schools are situated are large, well stocked, well equipped, and representative of the agricultural conditions of their respective areas, and they enable the breeding of pedigree live stock and the cultivation of land to be undertaken on a suitable scale for the benefit of students and the improvement of the stock of the country. The laboratory and classroom accommodation and equipment provide suitable facilities for a sound training in the science of agriculture.

The institutions have on their staffs separate lecturers in Agriculture and Stock, Agricultural Engineering, Veterinary Science, Chemistry, Botany, Entomology, Dairying, Poultry Husbandry and Horticulture, and (at Elsenburg) Viticulture and Wine-making; while there are also experimentalists and itinerant instructors. In addition to their educational duties, the staff perform some extension, experiment, and research work, and it is contemplated that in due course three more or less self-contained branches will be developed at each institution for college work, experiment and research work, and extension work.

3. **Courses.**—The courses of instruction consist of:

(i) *Ordinary.*—Two years' Diploma Course: Animal Husbandry, Field Husbandry, Veterinary Science, Agricultural Engineering, Horticulture, Dairying, Poultry-keeping, Viticulture (at Elsenburg), Agricultural Economics and Law, Farm Book-keeping, Agricultural Chemistry, Agricultural Botany, Agricultural Zoology and Entomology.

(ii) *Special.*—

(*a*) Special course in Sheep and Wool, at the Grootfontein School of Agriculture, February to September.

(*b*) Special course in Dairying, at the Glen School of Agriculture, October to September.

(*c*) Special short courses in Shearing, Sorting, and Classing Wool, etc., at Glen and Grootfontein Schools of Agriculture, for members of Wool Growers' Associations and others interested.

(iii) *Short Vacation Courses.*—

(*a*) Short summer vacation course in Wine-making, one week, at the Elsenburg School of Agriculture.

(*b*) Short summer vacation course in Sheep and Wool, one week, at the Potchefstroom School of Agriculture.

(*c*) Short winter vacation courses at all the Schools of Agriculture, from June to August in periods of not more than six days for each course. These comprise special subject courses and general courses, and are designed to meet the needs in particular of farmers, their wives, sons, and daughters, and rural school teachers who are unable to devote more than a few weeks to acquiring some knowledge of the subjects taught. The lectures and demonstrations are specially prepared, so that those attending them may secure the greatest benefit in the short time at their disposal. Women are afforded the opportunity of attending the courses in Poultry, Dairying, Horticulture, and Apiculture, in addition to the courses in Domestic Science specially provided for them.

The ordinary course of two years is essentially one which gives a sound practical as well as a technical training to young farmers, but it does not offer a full training for the *agricultural expert* or the *agricultural scientist.* This work is conducted by the Agricultural Faculties of the University of Stellenbosch and the Transvaal University College, Pretoria. (See Chapter IV, § 1.) The special courses should provide for those who have already had some experience in these branches of farming, and who are, for various reasons, unable to take and to receive the full benefits of the two-year course. The standard of entrance for the two-year diploma course is the Junior Certificate or its equivalent; and for the special courses the above diploma or previous experience in farming. The minimum age of entrance is respectively 16 years and 18 years. At few such institutions are students given a better opportunity of acquiring some skill in field operations, the care and management of stock, and practical training in the workshops than at those in the Union.

**Training Farms.*—Two training farms are conducted—Beginsel, Standerton, and Mariendahl, adjoining Elsenburg School of Agriculture—for the purpose of affording a practical training to prospective settlers on the land. Including schools and training farms, there is provision for the training of upwards of 500 pupils at one time.

4. **Extension Work.**—Considerable further progress has been made in developing this class of work, and the extension lectures have been well received by the farming community. During the year ended 30th June, 1922, the staff of the agricultural schools undertook

* Working in conjunction with Elsenburg.

over seven hundred lectures and demonstrations, chiefly at agricultural shows, at meetings of agricultural bodies, and at other gatherings in rural districts. About 2,000 farms and poultry yards were visited by the staff for the purpose of giving to the owners or occupiers advice on the management or development of their propositions, and for the inspection of pure-bred herds and flocks for purposes of the Stud-Book. It is estimated that during the past financial year the school dealt with some 27,000 inquiries of farmers and others seeking advice and information upon subjects connected with agriculture.

5. **Demonstration Train.**—Since the 17th March, 1924, the Railway Administration has held a demonstration train at the disposal of the Agricultural Department. Originally the train consisted of wagons devoted to the following subjects: Tobacco and Cotton, Field Husbandry, Animal Husbandry, Entomology, Poultry, Sheep and Wool, Horticulture, and Domestic Science. Afterwards the train was supplemented by wagons for the following sciences: Veterinary, Chemistry, Botany, and Agricultural Engineering. The demonstration carriages of the train are consequently equipped to represent all the principal branches of farming, and when the train is on the road it is accompanied by fully qualified lecturers.

The train has made eight journeys between March, 1924, and the end of April, 1926, which means that, with the exception of a few districts, the whole Union has been visited and the majority of the Agricultural Exhibitions attended. Upon all these journeys the train has been fully equipped with all its carriages, principally for the purpose of advertising itself throughout the country. After another two or three similar journeys have been completed, it will undoubtedly become necessary to modify the proceedings in certain respects, especially with regard to methods, which are largely dependent upon local conditions.

So far all the journeys of the train have met with complete success. In the future the train will undoubtedly play an important rôle and be one of the principal means in the dissemination of useful agricultural knowledge.

6. **Experiment Work.**—A large part of the work on the farms attached to the schools is devoted to experimental work under the direction of specially trained officials. These farms are more or less representatively situated in the several Provinces, so that the requirements of the greater part of the Union are well covered. The experiments undertaken are both varied and comprehensive, and may be classed as follows:—

(i) *Animal Husbandry.*—Experiments are conducted in cattle feeding with different rations, instituted to encourage the export trade in beef; in pig and lamb fattening and calf feeding; in crossing pure breeds of cattle, pigs, and sheep with the object of evolving grade animals suited to local conditions; at the Grootfontein School of Agriculture in the crossing of the Cape and North African ostriches to improve the quality of ostrich feathers, and in the breeding of Karakul sheep.

(ii) *Field Husbandry.*—Experiments under this head deal mainly with trials of different varieties of field crops. New varieties are constantly being introduced from abroad and tested. The best among them are retained, distributed for co-operative trial and, should they prove superior yielders, are grown on a large scale for the sale of seed to farmers. Rotation trials, with one or other of the main crops as the dominant feature, are carried out, and the majority of them include some method of maintaining the fertility of the soil, such as the growing of a leguminous crop for green manure. Different methods of cultivation are also tested.

(iii) *Fertilizers and Manures.*—Manurial trials are extensively conducted at each of the stations under the direction of the chemist. The trials are conducted chiefly on the same land upon which a full rotation of crops is cultivated.

(iv) *Miscellaneous.*—Experiments of a varied character are also carried on in the more specialized branches of agriculture, such as horticulture, viticulture, poultry-farming, tobacco culture, etc.

Co-operative experiments with farmers are now well in progress, and include manurial as well as varietal tests under the varying soil conditions of the different farms. It is sought to bring the results home to the farmers by direct demonstration on the spot.

7. **Laboratory Research.**—In addition to the field trials, many subjects have been investigated in the laboratories. At Cedara the tannin contents of wattle bark, and the extraction of bark, the oxidation of arsenite of soda in cattle dipping tanks, and the sugar contents of different varieties of cane, have been investigated; at Grootfontein, the harmful properties of some of the *storm waters* used for irrigation purposes, the innocuous nature of others, and investigation into soil-alkali problems; at Potchefstroom the methods of combating the ravages of the tubermoth on potatoes, and the theory of sex-control plant-breeding investigations; at Elsenburg the improvement of cereals by selection and hybridizing, wine-making, and a study of the nitrification process in the South-West soils. Soil surveys are being carried out more extensively, and work in this connexion is being co-ordinated by the Chief of the Division of Chemistry, Cape Town.

Arrangements are made at each of the schools for the analysis of soils and agricultural materials, and for the testing of milk and seeds required by farmers.

8. **Scholarships.**—Since the constitution of the Union (May, 1910), 126 scholarships have been awarded to students for special study oversea in agriculture, veterinary science, and the various agricultural sciences, for the purpose of training promising young South Africans to fill posts in the Union Department of Agriculture. The scholarships were of the value of £150 per annum, and have now been increased to £200; the limits of age of candidates are eighteen and twenty-five years; the minimum educational qualification is the Matriculation Examination of the University of the Cape of Good Hope, but candidates are required to have exhausted all facilities for studying their special subject in the Union before proceeding oversea; and on completion of their courses the recipients of these scholarships undertake, if required, to serve the Government for a period of three or more years. Ninety-eight men have already completed their studies, the majority of whom have received appointments in the Department. No new scholarships were granted in 1922–23, as Parliament was unable to vote the necessary funds.

9. **Household Science.**—The principal duties of Household Science officers attached to the Department of Agricultural Education are to give lectures and demonstrations upon cookery and the preservation of home products at gatherings in towns and villages—chiefly in the rural districts—as well as at agricultural shows, where these officers frequently act as judges in the women's section and render valuable assistance to societies in organizing this branch of their activities.

10. **Other Facilities.**—In addition to the instruction provided by the Department of Agriculture, faculties of agriculture are established at Stellenbosch and Pretoria in connexion with the Universities of Stellenbosch and South Africa, and provision is made for courses leading to a degree in agriculture.

11. **Sales of Stock.**—Sales of surplus stock bred on the farms are held annually at each of the schools.

12. **Expenditure and Revenue.**—The following table gives particulars of the expenditure and revenue in connection with Agricultural Education for the financial years 1919-20 to 1923-24:—

AGRICULTURAL EDUCATION, EXPENDITURE AND REVENUE, 1919–20 TO 1923–24.

Heading.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
EXPENDITURE.	£	£	£	£	£
Administration and General	4,388	5,920	7,489	7,587	*
Agricultural School—					
Elsenburg	19,954	27,097	29,167	28,732	29,603
Grootfontein	30,724	36,837	34,602	32,636	32,021
Cedara	12,375	15,760	18,684	18,488	18,633
Potchefstroom	24,494	27,718	27,645	26,232	26,850
Glen	14,941	23,041	23,311	23,280	22,928
Training Farms—					
Beginsel	—	—	3,280	3,527	4,078
Guba Park	—	—	4,422	3,647	1,176
Experiment Stations—					
Pietersburg	—	—	—	—	1,252
Bathurst	—	248	—	598	1,503
Winkelspruit	1,319	1,390	868	—	—
Hartebeestpoort	—	—	—	—	2,005
Household Science	446	294	*	*	*
Agricultural Scholarships and Bursaries	4,849	8,177	12,451	8,984	4,474
Purchase of Pedigree Stock	3,920	8,667	4,289	2,315	2,754
TOTAL £	117,410	155,149	166,208	156,026	147,277
REVENUE.					
Agricultural School—					
Elsenburg	8,040	9,431	10,978	9,131	10,316
Grootfontein	15,167	7,883	7,704	10,353	8,966
Cedara	5,967	6,204	6,190	6,203	4,962
Potchefstroom	10,333	10,089	8,395	13,185	8,530
Glen	5,743	6,429	5,299	6,966	5,287
Training Farms—					
Beginsel	—	—	401	251	686
†Guba Park	—	—	916	711	1,065
Experiment Station—					
Pietersburg	—	—	—	—	143
Winkelspruit	772	1,679	1,067	—	—
Bathurst	—	—	—	—	27
Miscellaneous	2,451	1,522	1,953	1,400	793
TOTAL £	48,473	43,237	42,903	43,200	40,775

* Accounted for under Vote for the Department of Agriculture.
† Not yet training students.

CHAPTER XIV.

FORESTS.

§ 1. Character and Extent of South African Forests.

1. **General.**—The Union is comparatively a poorly timbered country, and although fairly considerable areas of forest or scrub are known to have disappeared before axe and fire within the last century or two, there appears to be no reason to believe that it was ever, as a whole, a heavily timbered country during the present geological period. There seems to be no ground for supposing that even scrub forests were found on the High Veld or Karoid Veld of the interior, while the same remark applies to a large part of the mountain slopes and the country between the mountains and the sea.

2. **Scrub Forests.**—Roughly speaking the forests of this country may be classed as *dense timber forests* and savannah and *scrub forests*, and the latter form by far the greater proportion. They cover extensive areas known variously as *Thorn veld*, *Bush veld* or *Middel veld*, in addition to the *Low veld* of Natal and the Transvaal. Numerous species enter into their composition, but various kinds of Acacias predominate, and of these the common Mimosa, *Acacia karoo*, is the most widespread. Many of the species yield timbers of good quality, e.g. the wild Olive (*Olea verrucosa*), the Karree-boom (*Rhus lancea* and *viminalis*), the Camelthorn (*Acacia giraffae*), Knoppiesdoorn (*Acacia pallens*), Aapiesdoorn (*Acacia Burkei*), African Teak (*Adina galpini*), and Kajatenhout (*Pterocarpus angolensis*). These trees sometimes reach a moderately large size, sufficient for sawing into timber, but over much of the more accessible areas where they occur, the mature timber has already disappeared. Generally speaking, the trees are of small size and slow growth, and their often scattered distribution and the open nature of the forests do not render such forests suitable for economic forest management. These trees comprise, however, an asset of much value for fuel, fence posts, and other local uses, as well as for shelter for stock and protection against soil erosion. The land on which they are situated has mostly passed into private ownership or is situated within native reserves. Unfortunately, the value of scrub forests is often not realized by the owners, and the destruction of the forests has proceeded ruthlessly in the past, and is still continuing to a large extent. In the category of scrub forests should be included the bushy growth found along much of the coast. A good deal of this has been set apart as Government forest reserves for the prevention of the formation of sand-dunes.

3. **Timber Forests.**—These are found only on the seaward slopes of the mountain ranges within usually less than 100 miles of the coast, and at widely scattered intervals from the Cape Peninsula in the south-west to the Zoutpansberg Mountains in the north-east. Even on the mountain ranges where they occur they seldom occupy any extensive area continuously, but are almost always found in isolated patches of from a few acres to a few thousand acres each, in the *kloofs* or ravines.

(i) *Midland Conservancy, Cape Province.*—The largest of the more or less continuous areas of forest are found within a strip of country some 110 miles long and ten miles broad between the Outeniqua Mountains and the sea, extending from George through Knysna to the Humansdorp Division. It has been estimated that roughly 120,000 acres of this country are occupied by forests. These have been heavily exploited during the last century or more, and the *virgin* timber in them is approaching exhaustion. The principal species composing these forests, and the main uses of their woods are as follows :—

TREES COMPOSING CERTAIN FORESTS AND USES OF WOOD.

Podocarpus Thunbergii.	Real Yellowwood.....	Flooring boards and other building timbers; railway sleepers; joinery and furniture; naves for wagons, etc.
Podocarpus elongata....	Common Yellowwood.	
Curtisia faginea.....	Assegai.....	Wagon-wood (spokes, felloes, etc.).
Ocotea bullata.....	Black Stinkwood or Laurel.	Wagon-wood, furniture.
Olea laurifolia.....	Black Ironwood.....	Wagon-wood.
Apodytes dimidiata....	White Pear.....	Wagon-wood.
Gonioma kamassi.....	Kamassi-wood.....	Exported to Europe for the manufacture of shuttles for weaving, etc.

(ii) *Western Conservancy, Cape Province.*—From George westwards to the Cape Peninsula, scarcely anything remains of the forests which were once found on the mountains, and which were exploited from the earliest days of white settlement in South Africa. They were allowed to be destroyed by fire, and small patches of forests remain only in the more inaccessible kloofs. In the Cedarberg Mountains, north of Cape Town, a distinct type of forest occurs, namely, that of the Clanwilliam Cedar (*Widdringtonia juniperoides*). This species does not form continuous forest, but the trees grow singly or in small groups, scattered on the rocky slopes and crags. The wood is, perhaps, the best of all South African timbers, being a durable light softwood, and the larger trees in all the more accessible parts have long disappeared before the axe. Since the area was made a forest reserve all possible means have been adopted to protect it from fire and to assist regeneration.

(iii) *Eastern Conservancy, Cape Province.*—The timber forests occur chiefly on the Amatola and Pirie mountain ranges, but nowhere do they cover continuous areas of any great extent. These forests have been largely exploited in the past, and few of them still contain any appreciable quantity of virgin timber. In composition they are generally similar to those of Knysna, the most notable differences being that the valuable Stinkwood (*Ocotea bullata*) occurs only rarely in the forests of the Eastern Province, while on the other hand they contain much Sneezewood (*Ptaeroxylon utile*), the wood of which is one of the most durable timbers known, and is of great value for fence posts.

Kamassi wood is of rare occurrence, but the true Cape Box (*Buxus Macowani*), yielding a valuable wood not much inferior to the European boxwood, is found in fair abundance in the Alexandria and East London Divisions, forming, with Sneezewood and some other species, a type of low but dense forest in the neighbourhood of the coast.

(iv) *Transkeian Territories.*—The timber forests here are, in general, similar in distribution and composition to those of the Eastern Province, but somewhat extensive forests occur at intervals along the coast. The species constituting these are very varied, and include, in addition to the species of the Eastern Province, many others of more northern range, such as Cape Mahogany (*Trichilia emetica*), Umzimbiti (*Millettia caffra*), Umgesisa (*Cussonia umbellifera*), and Flatcrown (*Albizzia fastigiata*). Considerable quantities of Cape Box (*Buxus Macowani*) also exist in these forests.

Some of the more accessible of the Transkeian forests have been heavily worked in the past, but many of them, including most of the coast forests and some fine forests of nearly pure Yellowwood (*Podocarpus falcata*) in the northern part of the Territories, have been too inaccessible to allow of profitable utilization.

(v) *Natal.*—The forests of Natal are now of small extent, the greater proportion of those which once existed having passed out of Government ownership or been included in native locations, and much of the area once occupied by them has been deforested. Generally speaking, they may be grouped as mountain and coast forests like the Transkeian forests, and are of more or less similar composition. A special feature of some of the coast forests is the large proportion of Waterwood (*Syzygium cordatum*), a comparatively light, easily worked wood. Some of the Crown forests have been heavily worked in the past, but there are some well-stocked forests of virgin timber, largely Yellowwood, still existent on the reserves in the southern districts of Natal.

(vi) *Transvaal.*—The timber forests occur at widely scattered intervals on the mountain ranges along the eastern edge of the plateau from the Natal border northwards, and are of small extent, with the exception of some comparatively large and continuous areas on the easterly slopes of the Woodbush Mountains and, to a less extent, on the outlying Zoutpansberg Range, in the extreme north. With the exception of a few thousand acres of still virgin forest in parts of these ranges, the forests have all been heavily worked in the past and little merchantable timber remains.

4. **Extent of Plantations and Indigenous Forests.**—The area of all plantations and indigenous forests in the Union (including Government plantations and forests), as returned at the Agricultural Census of 1921, is shown in the following table, which gives the area under different species in the plantations in each Province :—

PLANTATIONS AND INDIGENOUS FORESTS (INCLUDING GOVERNMENT PLANTATIONS AND FORESTS)—AREA AT 30th APRIL, 1921.

Province.	Plantations.						Indigenous Forests.	
	Gums.	Conifers.	Poplars.	Wattles.	Other Species.	Total.	Dense or True Forest.	Scrub or Dwarf Forest.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cape of Good Hope....	24,742	38,757	7,329	15,110	27,783	113,721	521,336	2,368,255
Natal.....	14,197	3,524	902	222,778	6,625	248,026	147,200	128,192
Transvaal.....	60,272	10,587	4,707	49,289	14,803	139,658	107,652	4,064,910
Orange Free State.....	28,099	8,667	6,976	1,249	12,335	57,326	1,429	152,528
TOTAL.....	127,310	61,535	19,914	288,426	61,546	558,731	777,617	6,713,885

5. **Regeneration and Growth of the Timber Forests.**—In many of the forests, particularly in those of the Eastern Province, natural regeneration is very deficient, but in others, as in those of Knysna and some of the Transkeian forests, it is more abundant. In the majority of the forests, when in virgin state, the proportion of trees of pole size was low, and when exploitation of the forests occurred in the past little or no heed was given to the preservation of the young trees or to securing conditions favourable for natural reproduction. Often over-mature and rotten trees were the only trees left, and even since the Forest Department has taken charge of the forests, it has often been necessary to leave such trees owing to the fact that they were unmerchantable, and to there being an insufficient number of immature trees left to preserve the forest canopy. Moreover, the young growth in many of the forests was continuously destroyed by natives for the sake of hut-wattles, and grazing and fires have contributed to its destruction. Almost all the species of trees are of slow growth. For all these reasons it will be seen that many of the forests are necessarily not in a normal condition, and that, although it is not intended to allow the young growth to reach the dimensions or ages of the virgin timber, a considerable period of time must, as a general rule, elapse before much mature timber from them will again be available.

6. **Reserved Indigenous Trees.**—In terms of regulations framed under the *Forest Act*, No. 16 of 1913, the trees named in the following list are reserved indigenous trees within the several Provinces of the Union :—

LIST OF RESERVED INDIGENOUS TREES.

Botanical Name.	English Name.	Dutch Name.
Acacia albida, Delile.....	—	—
Acacia giraffae, Burch.....	Camel Thorn.....	Kameeldoring.
Acacia pallens (Benth), Rolfe.....	Knobthorn.....	Knoppiesdoring.
Adina Galpini, Oliver.....	African Teak.....	Mingerhout.
Afzelia quanzensis, Welv.....	Rhodesian Mahogany....	—
Albizzia fastigiata, Oliv.....	Flat Crown.....	—
Apodytes dimidiata, E. Mey.....	White Pear.....	Wit Peer.
Bolusanthus speciosus (Bolus), Harms.....	Elephant's Wood.....	Van Wijkhout.
*Brachylena dentata, Less.....	Malbar.....	Malbar.
*††Brachylena discolor, D.C.....	Forest Vaalbosch.....	Vaalbos.
Bridelia micrantha, Baill.....	—	—
Buxus Macowani, Oliv.....	Cape Box.....	Buig my nie.
Callitris arborea, Schroder.....	Clanwilliam Cedar.....	Seder.
Calodendron capense, Thunb.....	Wild Chestnut.....	Kastanjehout.
*†Celastrus acuminatus, L.....	Silkbark.....	Sybas.
†Celastrus peduncularis, Sonder.....	Zwarthout.....	Swarthout.
Celtis rhamnifolia, Presl.....	Camdeboo Stinkwood....	Wit Stinkhout, Kamdeboo Stinkhout, Witgathoom.
Chrysophyllum viridifolium.....	—	—
Combretum Kraussii, Hochst.....	Bush Willow.....	Rooiblad.

* Not reserved in the Eastern Conservancy. † Not reserved in the Transkeian Conservancy.
‡ Not reserved in the Natal Conservancy.

LIST OF RESERVED INDIGENOUS TREES—*continued.*

Botanical Name.	English Name.	Dutch Name.
Combretum porphyrolepis, Engl. and Diels.	Leadwood	Loodhout.
Croton sp. (Sim 2485)	—	—
Cryptocarya sp.	—	—
Cunonia capensis, L.	Red Alder	Rooi Els.
Curtisia faginea, Ait.	Assegai Wood	Assegaihout.
Cussonia umbellifera, Sond.	Coast Cabbage Wood	—
Cyclostamen argutus, Mall.	—	—
Diospyros mespiliformis, Hochst.	Hill Matomi	Jakhalsbessie.
Ekebergia capensis, Sparm.	Dog Plum, Cape Ash	Essehout.
Ekebergia Meyeri, Presl.	—	Essehout.
Elaeodendron croceum, D.C.	Saffron Wood	Saffraanhout.
Elaeodendron sphaerophyllum, Presl.	Cape Cherry	Koedoebessie.
‡§Erythrina caffra, Thun.	—	Kafferboom.
Eugenia Gerrardi, Harv.	—	—
†Eugenia Zeyheri, Harv.	White Underbush	—
†Excoecaria africana, Mull.	—	—
†Excoecaria caffra	—	—
Faurea saligna, Harv.	Cape Sandal	Beukenhout.
Faurea sp.	Boekenhout	Beukenhout (Pondoland).
Garcinia Gerrardi, Harv.	—	—
Gardenia Rothmannia, L.	Ebony	Wilde Katjepiering.
Genioma kamassi, E. Mey.	Wild Gardenia	Kamassi.
Harpephyllum caffrum, Bernh.	Kamassi	Kafferpruim, Suurbessie.
Heywoodia lucens, Sim.	Kaffir Plum	—
†Homalium rufescens, Benth.	Cape Ebony	—
†Ilex capensis, Sond. and Harv.	—	Without, Waterhout.
Kiggelaria africana, L.	Water Tree	Spekhout, Wilde Perske.
†Kiggelaria Dregeana, Turcz.	Wild Peach	Spekhout, Wilde Perske.
*Lachnostylis capensis, Turcz.	Wild Peach	Koolhout.
Leucadendron argenteum, R. Br.	Coalwood	Witboom.
Millettia caffra, Meisn.	Silver Tree	Kaffer Ysterhout, Umzimbiti.
Mimusops obovata, Sond.	Kaffir Ironwood, Umzimbiti	Rooi Melkhout.
Myrsine melanophleos, R. Br.	Red Milkwood	Beukenhout.
†Nuxia floribunda, Benth.	Cape Beech	Vlier.
Ochna arborea, Burch.	Wild Alder	Roothout.
†Ochna sp.	Cape Plane	Roothout.
Ocotea bullata, E. Mey.	Plane	Stinkhout.
Olea foveolata, E. Mey.	Black Stinkwood	Ysterhout.
Olea laurifolia, Lamk.	Bastard Ironwood	Regte Swart Ysterhout.
Olea verrucosa, Link.	Black Ironwood	Olyvenhout.
Olinia cymosa, Thunb.	Wild Olive	Rooibessie, Rooihout.
Phyllanthus amapondensis	Mountain Hard Pear, Red Berry	—
Platylophus trifoliatus, Don	Engossa Red Pear	Wit Els.
†Plectronia Mundtiana, Pappe	White Elder	Klip Esse.
Plectronia obovata	Rock Alder	Quar.
Pleurostylia capensis, Oliv.	Quar	Harde Peer.
Podocarpus elongata, L'Herit.	Coffee Pear	Geelhout.
Podocarpus Thunbergii, Hooker	Outeniqua or Bastard Yellowwood	Opregte Geelhout.
Ptaeroxylon utile	Real or Upright Yellowwood	Nieshout.
Pterocarpus angolensis, D.C.	Sneezewood	Kajat.
Pterocelastrus variabilis, Meisn.	—	Kersehout.
Pygeum africanum, Hook.	Candlewood	Bitter Amandel, Rooi Stinkhout.
Rhamnus Zeyheri, Sond.	Bitter Almond, Red Stinkwood	Rooi Ivoor.
Rhus laevigata, L.	Red Ivory	Kiriehout, Bos Taaibos.
Rhus longifolia, Sonder	Red Currant	Rooi Melkhout.
††Royena lucida, L.	Red Cape Beech	Swartbas.
*†Scolopia Ecklonii, Arn.	Zwartbast	Rooi Peer.
Scolopia Mundtii, Arn.	Red Pear	Rooi Peer.
Scolopia Zeyheri, Arn.	Red Pear	Doringpeer, Wolvedoring.
Sideroxylon inerme, L.	Thorn Pear	Wit Melkhout.
Strychnos Atherstonei, Harv.	White Milkwood	Kajatenhout.
Strychnos Henningsii	Cape Teak	Harde Peer.
Syzygium cordatum, Hochst.	Hard Pear	Waterbessie.
Syzygium sp.	Water Berry	Water Peer.
Terminalia sericea, Burch.	—	Vaalbos.
Toddalia lanceolata, Lamk.	—	Wit Ysterhout.
Tricalysia lanceolata	White Ironwood	Tolballie.
Trichilia emetica, Vahl.	—	Rooi Essehout.
Trichocladus crinitus, Pers.	Natal Mahogany	Onderbos.
††Trichocladus ellipticus, E. and Z.	Underbush	Onderbos.
Virgilia capensis, Lamk.	Underbush	Keur.
Vitex mooiensis, Pearson	Keur	—
Zanthoxylon capense, Harv.	—	Paardepraam.
And all Exotic Trees.	Knobwood	

*Not reserved in the Eastern Conservancy.
† Not reserved in the Transkeian Conservancy.
‡ Not reserved in the Natal Conservancy.
§ Not reserved in the Transvaal Conservancy.

§ 2. Forestry Development.

1. **Relation of the State to Forestry.**—Until 1876 no central or technical control was exercised over the Crown forests of the Cape Colony, but in that year a Department of Forests and Plantations was constituted, and in 1881 a Superintendent of Woods and Forests was appointed. In 1891 this post was abolished, and the four Conservancies into which the Colony had been divided were thereafter administered independently by four Conservators, until in 1905 a Chief Conservator of Forests was again appointed. In the Transvaal and the Orange Free State the Crown Colony Governments, about the year 1903, established Forest Departments as sub-divisions of the respective Agricultural Departments. In Natal no settled policy was followed, but the post of Conservator of Forests was twice made and abolished, the administration of the forests being in the hands of the Director of Agriculture from 1908 onwards. When the Union was established in 1910 the four Departments were immediately combined under one Chief Conservator of Forests, and uniformity of administration has since been maintained. In 1913 a *Forest Act* for the Union was passed (Act No. 16 of 1913). This Act, which came into force on the 1st November, 1913, consolidates and amends the forest laws previously in force in the various Provinces of the Union; and relates to forest tenure, forest reservation, demarcation, and the regulation and protection of forests. With certain modifications it follows the principles laid down by the Cape *Forest Acts*, No. 28 of 1888 and No. 20 of 1902. *The Forest (Demarcation) Act*, No. 14 of 1917, makes further provision as to the demarcation of forests and forest reserves. A number of Proclamations and Government Notices have been issued dealing with a variety of matters such as felling season, prospecting on forest reserves, reserved trees, tariff for collection of buchu, undemarcated forests, etc.

In terms of the Union Act forest reserves consist of both demarcated and undemarcated reserves. The penalties imposed in respect of offences within the demarcated forests are, as a rule, severer than those levied in the case of offences in undemarcated forests. The Act confers upon the Government the power of expropriation of land for certain forestal purposes and provides that no servitudes can now be acquired by prescription over the forest estate. Certain portions of the Act deal specifically with the protection of private forests, but, in addition, any owner of a private forest may have any or all of the provisions of the Act applied to his forests for their better protection. All trees growing on the side of any road and not being on private property are, in terms of the Act, subject to the control of the Forest Department, provided they are not within the limits controlled by a municipality or other similar public body.

On the 31st March, 1924, the forest reserve areas comprised 2,042,666 acres demarcated, and 593,443 acres undemarcated, representing a total of 2,636,109 acres.

Demarcation is still proceeding, especially in the Transkeian Territories, where a considerable area of timber forest remains to be dealt with.

2. **Policy of the Forest Department.**—The policy of the Forest Department may be briefly stated to be as follows:—

(*a*) To protect and conserve the indigenous timber forests and to utilize their products in such a manner as not to impair but rather to increase their future productivity. Funds are voted annually by Parliament for this purpose, and are mainly spent on protection from fire, and on artificial reproduction where natural regeneration is lacking. The destruction of young growth by natives for hut-wattles has been almost entirely stopped as a result of the establishment of plantations of exotic species to supply this product. The cash revenue derived from the indigenous forests during the financial year 1923–24 was £29,087. In addition many thousands of pounds' worth of forest produce (chiefly firewood and hut-wattles) were removed free of charge.

(*b*) To increase the production of timber in the country by the formation and proper management of plantations of exotic trees, numerous species, yielding either the ordinary softwoods of commerce or durable softwoods of the cedar and cypress classes, or durable hardwoods such as some of the eucalypts, are principally employed, the selection of species varying in different parts of the country according to the climate and soil.

The afforested area of the Government plantations on the 31st March, 1924, was 110,072 acres. The cash revenue derived from the plantations during the financial year 1923–24 was £63,461. These figures include those for the railway sleeper plantations, the management of which is undertaken by the Forest Department, and also include revenue derived from sales of transplants and seeds to the public.

A good deal of the vacant ground included in the forest reserves is suitable for afforestation, with which steady progress is being made.

The earlier plantations are beginning to yield considerable returns from thinnings, but mature timber will not be ready for cutting for some years, except on small areas.

The Department also undertakes the reclamation of drift-sands on the coast, where required, in addition to protecting the natural vegetation, with a view to preventing the formation of new drift-sands.

(c) To encourage the general afforestation of the country by inducing farmers and others to plant trees for purposes of shelter, to provide wood for fuel, and for other local uses. With this object the Forest Department disposes of forest trees and seeds at very low prices, and it is always ready to give advice as to the selection of species, methods of cultivation, and the like. Its officers also give lectures at some of the Agricultural Schools.

During the financial year 1923–24, 4,228,970 transplants were sold and otherwise disposed of from the Government nurseries, a considerable number being issued gratis to Government institutions. By far the greater proportion of these trees was planted in the Transvaal and the Orange Free State, on the treeless high veld.

While only a few private plantations of any extent have been established with the object of producing mature saw timber, fairly large areas have been planted by companies or private individuals with the object of producing mine-props.

The most extensive private plantations, however, are those of black wattle for the production of tan-bark, and the area of these in Natal, where the industry is centred, is estimated to be approximately 220,000 acres, the total area for the Union being probably about 288,000 acres.

3. **Organization of the Forest Department.**—The Department is controlled by the Chief Conservator of Forests, who is also the Accounting Officer, and it is a sub-department of the Department of State controlled by the Minister of Agriculture.

The Department is divided into six Conservancies, which in turn are divided into districts. These are as follows :—

CAPE PROVINCE, WESTERN CONSERVANCY.—Conservator of Forests, Cape Town. District Forest Officers, Tokai, Kluitjes Kraal, Elgin.

CAPE PROVINCE, MIDLAND CONSERVANCY.—Conservator of Forests, Knysna. District Forest Officers, George, Knysna, Storms River, Concordia.

CAPE PROVINCE, EASTERN CONSERVANCY.—Conservator of Forests, King William's Town. District Forest Officers, King William's Town, Port Elizabeth, Stutterheim, Keiskama Hoek.

CAPE PROVINCE, TRANSKEIAN CONSERVANCY.—Conservator of Forests, Umtata. District Forest Officers, Butterworth, Kokstad, Umtata, Mount Frere.

TRANSVAAL AND ORANGE FREE STATE CONSERVANCY.—Conservator of Forests, Pretoria. District Forest Officers, Doornboom, Pretoria, Bloemfontein.

NATAL CONSERVANCY.—Conservator of Forests, Pietermaritzburg. District Forest Officers, Eshowe, Weza, Cedara.

The number of District Forest Officers, including Assistant District Forest Officers, is forty. Each district usually comprises several forest stations, which are in charge of Foresters, of whom there are one hundred and forty-five.

FOREST SCHOOL.—A lower-grade forest school is conducted at Tokai, Cape Province, for the training of Foresters, the course occupying nine months after an apprenticeship period of one year.

RESEARCH BRANCH.—This is attached to the office of the Chief Conservator of Forests, Pretoria, and undertakes research and the collection of data relating to all branches of forestry, especially sylviculture and the utilization of forest products. It includes charge of herbarium and museum. Investigations into the seasoning of wood in modern kilns and the preservative treatment of timber are now being carried out. A sylvicultural research station is established at Deepwalls, near Knysna. Altogether, eight professional officers are employed in this Branch.

RECRUITMENT OF OFFICERS.—Officers of the higher grade are recruited from graduates of South African Universities who subsequently complete a course in forestry at an approved British or American University.

4. **Revenue and Expenditure of Forest Department.**—The subjoined tables give particulars of expenditure and revenue of the Union Forest Department in the financial years 1922–23 and 1923–24, distinguishing railway sleeper plantations from ordinary forestry operations :—

FORESTRY EXPENDITURE AND REVENUE, FINANCIAL YEARS 1922–23 AND 1923–24.

Forestry (exclusive of Railway Sleeper Plantations).			Railway Sleeper Plantations.		
Heading.	1922–23.	1923–24.	Heading.	1922–23.	1923–24.
(*a*) EXPENDITURE.					
	£	£		£	£
Salaries and allowances..	82,208	82,094	Salaries and allowances..	5,477	6,468
Transport.....	10,814	12,292	Transport.....	218	149
Nurseries and plantations	41,959	45,500	Nurseries and plantations	22,467	23,122
Forest protection and development.....	10,071	10,908			
Uniforms.....	1,194	1,709			
Scholarships and School of Forestry.....	1,640	1,195			
Miscellaneous.....	3,826	2,758			
Expenditure from Loan Funds.					
Plantations.....	186,070	189,937			
Miscellaneous.....	4,876	7,698			
Purchase of Land.....	41,166	4,895			
TOTAL.....£	383,824	358,986	TOTAL.....£	28,162	29,739
(*b*) REVENUE.					
Sales of—	£	£	Sales of—	£	£
Timber.....	28,006	29,385	Timber.....	2,514	3,624
Firewood.....	13,944	15,595	Firewood.....	3,186	3,535
Charcoal.....	—	38	Charcoal.....	—	296
Hut-wattles, etc.....	4,338	4,786	Wattles.....	1,537	2,322
Bark.....	407	774	Bark.....	580	561
Minor produce.....	22,468	26,531	Minor produce.....	3,775	3,363
Departmental Receipts.	2,993	4,200			
TOTAL.....£	72,156*	81,309†	TOTAL.....£	11,592‡	13,701§

* Value of gratis issues in addition to sales amounted to £12,867.
† Value of gratis issues in addition to sales amounted to £25,478.
‡ Value of gratis issues in addition to sales amounted to £314.
§ Value of gratis issues in addition to sales amounted to £246.

§ 3. Forest Products.

1. **Imports of Unmanufactured Timber.**—The subjoined table gives particulars of the quantity and value of unmanufactured timber imported into the Union during a series of years :—

QUANTITY AND VALUE OF UNMANUFACTURED TIMBER IMPORTED INTO THE UNION, 1910 TO 1924.

Year.	Teak.		Hickory.		Jarrah and Karri.		Mahogany.	
	Cub. Ft.	£	Cub. Ft.	£	Cub. Ft.	£	Cub. Ft.	£
1910...	228,111	82,805	42,031	5,723	256,773	17,372	8,419	1,899
1911...	226,361	84,028	55,774	9,622	279,358	19,739	11,545	2,850
1912...	160,800	57,692	80,325	10,977	274,825	20,299	11,318	3,111
1913...	224,423	97,776	40,617	6,657	405,528	28,742	11,793	3,837
1914...	211,708	86,264	21,286	3,609	679,107	46,185	5,802	1,430
1915...	116,527	52,315	16,281	2,783	119,610	9,061	4,022	1,109
1916...	62,852	19,027	11,943	2,190	237,907	22,504	4,022	1,569
1917...	162,923	61,553	2,253	458	66,293	6,207	592	278
1918...	118,897	43,117	—	—	111,566	10,681	10,573	2,917
1919...	309,304	183,355	4,563	1,276	169,990	18,727	3,751	723
1920...	300,448	237,647	4,497	2,516	242,406	32,060	24,406	9,581
1921...	213,874	148,055	1,724	683	273,946	59,209	173,557	27,739
1922...	245,396	95,611	708	510	204,669	28,168	9,012	4,267
1923...	337,774	122,259	1,067	541	509,064	85,953	13,389	7,324
1924...	371,536	126,660	†	†	217,391	33,516	†	†

Year.	Oak.		Pine.		Poplar.*		Walnut.	
	Cub. Ft.	£	Cub. Ft.	£	Cub. Ft.	£	Cub. Ft.	£
1910.	95,949	12,552	11,296,621	636,927	102,480	14,761	68,488	7,670
1911.	97,445	12,851	10,782,085	581,056	74,171	10,735	67,847	7,083
1912.	137,618	18,350	7,756,330	449,981	100,699	14,563	101,320	12,706
1913.	153,124	20,655	10,054,938	570,030	98,657	12,601	67,674	9,850
1914.	114,782	15,733	7,622,898	409,597	42,079	5,774	42,637	6,337
1915.	194,633	26,439	4,050,136	248,809	34,539	5,212	42,182	5,386
1916.	198,443	35,933	5,260,474	432,912	50,664	8,155	33,663	6,304
1917.	157,728	27,280	4,408,812	429,822	23,026	3,568	23,068	3,672
1918.	389,663	79,102	3,568,148	473,598	33,213	7,162	7,284	943
1919.	165,562	39,406	4,173,818	606,823	31,216	9,756	8,366	2,259
1920.	427,719	209,758	8,778,049	1,594,999	46,923	24,861	24,588	12,303
1921.	154,493	67,148	4,008,672	652,011	11,870	5,736	16	13
1922.	231,249	62,375	6,151,077	667,685	26,552	6,986	1,394	712
1923.	391,542	88,518	8,162,189	927,311	21,030	7,491	796	429
1924.	416,877	106,052	8,981,105	951,197	†	†	†	†

Year.	Other Timber (not otherwise described).		Floorings and Ceilings.		Other (planed and grooved).	
	Cub. Ft.	£	Cub. Ft.	£	Cub. Ft.	£
1910.....	785,162	48,504	2,858,616	182,344	296,793	30,726
1911.....	1,276,286	57,150	2,806,752	192,395	275,509	33,536
1912.....	2,253,667	120,370	2,844,430	184,838	295,150	38,626
1913.....	1,118,828	64,944	3,982,194	260,501	351,627	38,110
1914.....	1,026,419	63,358	2,041,974	143,434	176,930	18,937
1915.....	490,011	37,531	912,261	76,655	110,165	12,309
1916.....	397,906	33,753	1,192,961	136,416	108,858	12,572
1917.....	403,568	29,087	906,859	145,296	55,638	7,245
1918.....	581,753	57,529	933,535	209,277	53,409	11,597
1919.....	577,065	75,663	1,036,575	204,179	53,065	11,360
1920.....	902,531	177,297	2,216,443	545,976	165,089	49,352
1921.....	657,469	86,710	1,127,953	244,350	35,383	12,188
1922.....	1,249,580	116,187	2,250,414	298,791	16,840	5,406
1923.....	1,837,337	190,405	2,584,849	366,984	42,043	8,871
1924.....	985,388	128,112	2,754,673	376,591	54,899	10,961

* Probably this is chiefly Yellow Poplar or Tulip and not true Poplar (Populus).
† Included with other timber.

In addition, manufactured wood to the value of £1,043,220 and £1,151,022 was imported in 1923 and 1924, making a total value of £2,849,306 and £2,884,111 respectively.

The exports of South African woods during 1923 and 1924 were of a value of £10,920 and £7,102 respectively.

2. **Yield from South African Forests, etc.**—The yield from the Government forest reserves and plantations during the financial years 1919–20 to 1923–24 was as follows :—

GOVERNMENT FOREST RESERVES AND PLANTATIONS—YIELD OF TIMBER, 1919–20 TO 1923–24.

Description.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	Cub. Ft.	Cub. Ft.	Cub. Ft.	Cub. Ft.	Cub. Ft.
From Indigenous Forests—					
Timber*	1,124,819	1,208,563	811,645	614,196	766,720
Firewood	1,141,548	2,229,183	1,855,875	1,790,543	1,644,561
Hut-wattles, fencing droppers, etc.	80,679	125,870	123,229	192,317	161,184
From Plantations—					
Timber*	1,328,321	620,634	358,509	383,405	746,627
Firewood	1,592,478	1,195,838	1,800,837	1,447,374	2,034,118
Hut-wattles, fencing droppers, etc.	108,700	121,108	102,142	107,768	121,482
From Railway Sleeper Plantations—					
Timber*	70,958	77,261	64,482	84,229	122,637
Firewood	112,968	201,928	245,530	365,903	432,786
Hut-wattles, fencing droppers, etc.	45,734	67,282	55,313	53,934	76,711
TOTAL	5,606,205	5,847,667	5,417,562	5,039,669	6,106,826

* Includes mine-props, fencing poles, etc.

Of wood produced other than on the forest reserves, a large quantity is cut annually in the wattle plantations, and though a good deal of it is wasted owing to inaccessibility, much of it is used for fuel, mine-props, etc., and a small part of it is converted into boxwood. Private plantations yield a large proportion of the props used in the gold and other mines. Considerable quantities of wood from the scrub forests on private property are used for fuel, charcoal, fence posts, and other local requirements. A small amount of wood in both scrub and timber forests on private ground is converted into sawn timber.

A large proportion of the sawn wood produced in the Union is used for wagonwood and furniture for which purposes many of the South African woods are particularly suitable. Yellowwood is used for railway sleepers as well as for general construction timbers. Smaller proportions of the total are converted into such articles as boxes and tool-handles.

The following table gives the production from all plantations and indigenous forests in the Union, as returned at the Agricultural Census of 1921, in respect of the year ended 30th April, 1921 :—

PRODUCTS FROM PLANTATIONS AND INDIGENOUS FORESTS, YEAR ENDED 30th APRIL, 1921.

Product.	Cape.		Natal.		Transvaal.		Orange Free State.		Union.
	Planta-tions.	Forests.	Planta-tions.	Forests.	Planta-tions.	Forests.	Planta-tions.	Forests.	
Railway sleepers No.	3,100	44,400	3,000	4,200	—	17,000	—	200	71,900
Mine props...No.	3,589	2,593	139,116	24	26,120	4,985	21	125	176,573
Wagon wood Cub. ft.	6,601	175,620	2,100	2,700	1,400	67,400	—	—	255,821
Timber—									
For industrial purposes* C. ft.	645,000	741,900	279,700	86,200	29,300	30,800	27,400	—	1,840,300
For non-industrial purposes† Cub. ft.	949,300	920,725	108,700	43,600	438,500	91,600	51,900	5,800	2,610,125
Fuel and charcoal wood..Wgn.Lds.	43,216	113,805	43,476	2,081	12,590	36,880	3,947	5,691	261,686
Charcoal (manufactured)....lb.	340,100	2,012,900	1,196,300	22,000	1,598,500	1,637,300	25,600	343,900	7,176,600

* E.g. Saw timber, Railway and Harbour works, buildings, match factories, etc.
† E.g. Fencing posts, fencing droppers, building spars, etc.

3. **Minor Forest Industries.**—(i) *Wattle Bark.*—This is by far the most important of the minor forest industries of the Union. It is a well-established one, and promises to have a future of continued expansion and prosperity. It has been developed by private enterprise, notably in Natal, where, as already mentioned, the greater proportion of the approximate total of 288,000 acres of private wattle plantations is situated. The area of wattle on the Government plantations is insignificant by comparison, the areas which exist consisting for the most part only of belts established for the purpose of fire protection.

The following table gives the production of wattle bark from all plantations in the Union, as shown in the Agricultural Census of 1921 :—

PRODUCTION OF WATTLE BARK IN THE UNION, YEAR ENDED 30th APRIL, 1921.

Heading.	Cape.	Natal.	Transvaal.	Orange Free State.	Union.
Area clear cut Acres.	436	17,450	1,463	—	19,349
Yield.....lb..	1,729,700	106,361,600	8,484,400	—	116,575,700

The exports of (*a*) wattle bark and (*b*) bark extract from the Union during a series of years were as follows :—

(*a*) **WATTLE BARK—EXPORTS, 1915 TO 1924.**

Year.	United Kingdom.	Australia.	United States.	Germany.	Japan.	Belgium.	Holland.	Other Countries.	Total.
				QUANTITY.					
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1915..	33,966	8,496	1,540	—	3	—	—	826	44,831
1916..	28,399	5,817	12,783	—	890	—	—	9,082	56,971
1917..	25,508	9,041	3,138	—	1,965	—	—	6,623	46,275
1918..	39,950	4,253	2,479	—	5,764	—	—	1,506	53,952
1919..	20,809	6,946	20,291	—	5,937	1,810	2,620	4,909	63,322
1920..	36,460	3,213	20,470	3,466	5,582	2,229	2,133	5,358	78,911
1921..	14,298	3,169	6,777	38,188	10,685	1,449	2,781	2,595	79,942
1922..	28,786	3,796	10,009	73,731	6,652	3,384	3,476	6,024	135,858
1923..	34,444	9,113	13,074	36,269	8,323	4,601	5,761	9,077	120,662
1924..	21,831	3,495	7,632	24,102	9,165	4,144	23,558	7,898	101,825
				VALUE.					
	£	£	£	£	£	£	£	£	£
1915..	150,415	35,102	6,156	—	13	—	—	3,558	195,244
1916..	129,287	24,772	53,570	—	4,063	—	—	43,172	254,864
1917..	131,116	39,856	14,266	—	9,265	—	—	29,479	223,982
1918..	218,484	19,472	12,232	—	29,700	—	—	7,332	287,220
1919..	135,664	35,854	122,026	—	35,347	11,797	19,578	25,830	386,096
1920..	325,697	23,653	168,647	23,160	44,467	18,127	16,455	42,309	662,515
1921..	90,588	16,482	36,476	214,886	60,914	8,791	16,203	12,978	457,318
1922..	173,925	21,033	55,657	433,400	41,390	18,571	19,808	36,158	799,942
1923..	191,098	47,873	66,598	197,706	46,584	24,071	32,252	53,115	659,297
1924..	128,432	20,537	43,623	132,876	52,574	24,830	134,242	46,858	583,972

(*b*) **BARK EXTRACT—EXPORTS, 1916 TO 1924.**

Year.	United Kingdom.	Australia.	United States.	Germany.	Japan.	Belgium.	Holland.	Other Countries.	Total.
				QUANTITY.					
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1916..	491	—	—	—	—	—	—	—	491
1917..	1,184	45	6	—	45	—	—	112	1,392
1918..	3,564	292	—	—	133	—	—	180	4,169
1919..	6,513	249	35	—	13	—	31	39	6,880
1920..	7,541	310	713	—	217	59	17	641	9,498
1921..	3,590	40	684	714	65	238	92	46	5,469
1922..	6,534	74	—	4,131	68	465	393	510	12,175
1923..	11,277	125	—	4,396	431	459	103	689	17,480
1924..	8,178	88	143	4,531	212	1,025	898	1,972	17,047
				VALUE.					
	£	£	£	£	£	£	£	£	£
1916..	14,930	—	—	—	—	—	—	—	14,930
1917..	42,202	1,600	168	—	1,550	—	—	4,000	49,520
1918..	103,600	10,360	—	—	4,505	—	—	6,410	124,875
1919..	204,440	7,094	1,089	—	1,300	—	940	1,223	216,086
1920..	263,449	11,043	16,292	—	8,124	2,261	581	22,219	323,969
1921..	72,296	697	18,444	12,595	1,550	4,501	1,872	854	112,809
1922..	109,467	1,222	—	68,912	1,196	8,179	6,157	8,064	203,107
1923..	168,788	2,011	—	68,527	7,182	7,296	1,623	10,657	266,084
1924..	122,284	1,324	2,155	69,121	3,195	16,001	12,652	30,068	256,800

The main market for the bark is Germany, but during the War the United Kingdom occupied the leading position in this respect. The leather manufacturers in Great Britain, have, however, for the most part, required their tanning material in the form of extract. Efforts have been made to secure a greater market for the bark in Great Britain, and factories for the production of the extract have been established in South Africa.

(ii) *Buchu.*—This product, which is used for medicinal purposes, consists of the dried leaves of two or three species of *Barosma*, shrubs which grow on the mountains of several of the south-western districts of the Cape Province. The most valuable kind is *Barosma betulina*, which grows principally in the Cedarberg Mountains, but also in the Tulbagh, Ceres, and Piquetberg Divisions. There is a considerable demand for this product in Europe and America, and large quantities are exported annually. The export in 1924 was 152,657 lb, value of £17,965, or 2s. 4d. per lb.

The greater part of the output is obtained from privately owned lands.

During 1923–24 the revenue derived from buchu collected on the forest reserves was £4,454.

(iii) *Berry Wax.*—This is obtained from the berries of *Myrica cordifolia*, a shrub growing on the coast sands in the neighbourhood of Cape Town. It is used locally for floor polish, etc., and is also suitable for soap manufacture.

CHAPTER XV.

FISHERIES.

§ 1. The Fishing Industry of the Cape of Good Hope.*

1. **History of the Industry.**—The fishing industry is one which has to a large extent been neglected, and the earliest settlers in this country found little encouragement in developing it. Van Riebeek, the first Governor, issued peremptory instructions that they were not to "waste their time in fishing," and this continued to be the spirit in which the calling was viewed until comparatively recent times. Some of the freed slaves were, however, allowed to engage in fishing. These were chiefly Malays, who to this day constitute the chief fishing population. Long after the time of Van Riebeek, obstacles were placed in the way of the development of the fishing industry, and only 150 years ago Colonists were forbidden to establish fishing stations at any distance from Cape Town, as this necessitated protection from headquarters. Fishing was, indeed, allowed at Saldanha Bay, but, as a 15 per cent. royalty was demanded on the proceeds, no one cared to take advantage of the permission. The native fishermen pursued their calling with the aid of small open boats, which they carried up on to the beach out of the reach of the waves on each return from the fishing grounds, a habit which they have preserved up to the present, when the necessity for it has ceased, as for instance in Table Bay, where it is now quite safe to anchor the boats. They fish almost exclusively by hook and hand line, and, to a limited extent, by seine nets in certain localities. Drift and trammel nets are unknown, and set nets are not much used. There is no long line fishing. Until comparatively recently it was often easy to glut the limited market with fish, and to prevent such an undesirable state of affairs the fishermen regulated the quantities of fish caught, and little was to be feared from any disturbance of their monopoly.

2. **Later Development.**—Within the last thirty or forty years, owing partly to the increased white population and the consequent demand for fish, attention has been directed to the possibilities of developing the fisheries. Modern methods of fishing, such as long line fishing and trawling, were attempted by private enterprise, but did not prove successful. The use of the long line was rendered difficult on account of the large number of dog-fish which infest South African waters. Trawling was tried in Table Bay and elsewhere. At Port Elizabeth it was taken up by the steam tugs in their spare time, and an area in Algoa Bay, of somewhat limited extent, was regularly visited, and afforded a small supply of soles. In the year 1895 the attention of the Government of the Cape Colony was drawn to the undeveloped state of the fisheries, and the need for some action to be taken in the matter. An officer was appointed for the purpose of obtaining definite and reliable information as to the resources of the South African seas, and to advise as to what steps should be taken to place the industry on a more satisfactory basis, both with regard to its development and to its conservation. A steam trawler, the *Pieter Faure*, specially designed for experimental work, was built, and a systematic investigation commenced. This investigation was initiated and carried out under the Department of Agriculture, of which the late Sir Pieter Faure was then Secretary. Details of the work are embodied in reports of Government biological and marine investigations in South Africa, published by the Government of the Cape of Good Hope. Briefly stated it was found that, while long line fishing and net fishing generally were not impracticable, yet the most promising line of development was that of trawling. Though the West Coast proved unsuitable, some very large hauls of the trawl were made in False Bay, and, on proceeding to the large area of the Agulhas Bank, certain extensive pieces of ground were, after careful survey, found not only to be suitable for trawling, but to afford phenomenal quantities of soles. The trawling area in False Bay proved to be limited and somewhat patchy, and, although two small vessels, owned by private firms, soon afterwards began working the ground surveyed, no very important progress was made. The soles were limited as to numbers, small, and of inferior quality. On the other hand, the area found further afield (first at Mossel Bay), though

* Contributed by J. D. F. Gilchrist, M.A., Ph.D., D.Sc., Marine Biologist, Cape Province.

admirably adapted for trawling, and with an abundant supply of valuable soles, was so far removed from the market that some difficulty was experienced in opening it up. Further survey showed that other areas, both on the Agulhas Bank and on the East Coast near Bird Islands, were excellent trawling grounds, and several large modern trawlers are now landing fish from these areas, so that the fish supply has been recently about doubled. The fisheries survey was resumed in 1920, a trawler, s.s. *Pickle*, being utilized for the purpose, and valuable results have accrued from the more recent investigations. In 1911 (according to Census returns), the catch of fish by Cape fishermen was about 116,000 cwt., while in 1913 (according to Customs returns) the catch of fish by Cape trawlers represented 125,000 cwt. Subsequent figures are given in paragraph 7 below.

3. **Cape Fishing Pursuits.**—The development of Cape fisheries has not been along the lines customary to such enterprises. Owing to the lack of harbours in which large boats can find shelter, and to some extent to the apathy and conservatism of the native fishermen, there has been no transition stage from the utilization of small open rowing boats to that of large modern steam vessels, and there are no large-decked sailing boats which find shelter in small fishing harbours. The construction of small fishing harbours is the next desideratum in the progress of the fishing industry to allow of the use of the decked sailing boats so characteristic of the fishing industry of Europe. Initial steps have already been taken in this direction, and the accomplishment of the desired object would probably mean the rise of a new and enterprising race of fishermen, and probably the improvement of certain branches of fishing at present neglected. The fishing industry and its possible development cannot, however, be exactly on the same lines as in Europe, the fish themselves being in some degree different in kind and habit; but there is enough similarity to justify the conclusions—already partly proved—that there is a great opening for improved methods in the catching, curing, and distribution of fish on modern lines.

4. **Fish Varieties.**—The following brief review of the Cape fish and fisheries gives a concrete idea of the industry and its possibilities :—

(*a*) *Snoek.*—The *Snoek* (the *Barracouta* of Australia) was about twenty years ago one of the most abundant of Cape fish. At that time it was caught in enormous numbers during the season, and was exported to Mauritius. It is a fish peculiar to the southern hemisphere, occurring in the waters round Chili, Tristan da Cunha, the south-west of the Cape, and the south-west of Australia. Of recent years it has, to a large extent, disappeared, and with it one of the most characteristic features of the Cape fisheries. It may be that this fish is to be found in other localities too distant to be visited by small open boats.

(*b*) *Silverfish, Hottentots, Pangas, Red Stumpnose, etc.*—These fish are more or less stationary in their habits, and are the staple fish of the fishing industry. They are caught by hand lines, and are usually fairly abundant, though of late years the fishermen complain of scarcity. This they attribute, among other things, to the destruction of the fry and eggs by the trawl. This question and the kindred one of the destruction of immature fish was investigated by the Cape Government by means of the prospecting steamer and a small marine laboratory. It was shown that the allegations were without foundation, and the new industry was saved from the untimely end which was the fate of a previous venture, referred to below. It has been demonstrated on a small scale that some of these fish are well adapted to the process of smoking, and they would undoubtedly compete satisfactorily with the great quantities of imported smoked fish with which the South African market is supplied.

(*c*) *Geelbek, Kabeljauw,* and *Stockfish.*—These are among the most important of the large migratory fish. The *Geelbek* (often known as the *Cape Salmon*) is a large handsome fish with a superficial resemblance to the salmon, but with no real affinity to the *Salmonidae.* It is not often caught in the trawl, but is frequently taken in large quantities by hook and line. The *Kabeljauw* and the *Stockfish* are said to be identical with the *Maigre* and the *Hake* of European seas. They are caught both by line fishing and by trawl, by the first-named sometimes in great quantities. With these larger migratory fish is included the brilliantly coloured *Seventy-four,* more abundant in the warmer waters of the East Coast, where it is known as the *Silverfish,* the *Silverfish* of the West Coast being known as *Carpenters.* With modern methods of fishing and with larger boats, which would enable the line fishermen to proceed further out to sea, these large and valuable fish could doubtless be procured in greater quantities.

(*d*) *Smaller Migratory Fish.*—Among the smaller migratory fish are the *Mackerel,* the *Harder,* the *Herring,* and the *Anchovy.* The *Mackerel* is very little different from the European species, and occurs abundantly at certain seasons. It is not, however, looked upon with favour by the fishing community, and is even regarded as poisonous, and indeed it may have proved so when preserved by

some of the rough-and-ready methods once in vogue. An enterprising American some years ago visited the Cape with a schooner and brought nets for the express purpose of procuring a fish which is appreciated at its true value in America. Great quantities were procured, but the native fishermen made such strong representations as to the damage caused, especially to the *spawn* of fish, that in the absence of better information, the Legislature was induced to pass a law forbidding the use of such nets. Of the smaller migratory fish, neither the *Herring* nor *Sardine*, nor the *Anchovy*, is put on the South African market, which is flooded with tinned sardines, smoked herring and haddocks, and other European fish.

(*e*) *Flat Fish.*—The investigations of the Government have shown that a sole, equal in value to the European sole, occurs in great abundance on the Agulhas Bank. South Africa is now better supplied with this fish than Britain, and its exportation in ice to Europe may be quite a feasible enterprise.

(*f*) *Crawfish.*—A species of crawfish occurs very abundantly in the colder waters of the West Coast, from Cape Point northwards. For many years, owing to defective canning and other causes, the crawfish industry made little or no progress, but recently great advances have been made, and at the present time a very extensive export trade is being carried on. Thus in 1920 there were fifteen factories engaged in this industry, each dealing on an average with more than a million crawfish. In 1922 there were ten canning companies in operation, and the number of crawfish caught was 14,801,546.

(*g*) *Oysters.*—The *Rock oyster* was formerly very abundant; a fair supply is yet obtained from some places, and for these good prices are secured. The supply has, however, become very limited, yet there is every prospect that with artificial propagation and adequate care a valuable industry may be established. The *English Oyster* might be cultivated in some of the more sheltered bays, such as Saldanha Bay, Knysna, and Zwartkops. Experiments have actually been made in this direction, but, although the oyster thrives well, no sustained and systematic oyster culture has been attempted.

5. **Whales.**—Of recent years great improvements in the method of capturing whales and in their subsequent treatment have been effected; and various species, formerly of little value, now comprise the basis of important industries in various parts of the world. In South Africa the revival of this old industry has been rapid. The value of whale oil exported from South Africa in 1910–14 (average) was £106,989, and in 1924, £264,742.

6. **River and Enclosed Water Fisheries.**—The rivers of the Cape Province were remarkable for the poverty of their fish fauna. The *Kurper*, or native carp, is a small fish; the *Wit-visch*, a kind of barbel, is of little value from a sporting or economic point of view; and the same is to be said of the *Moggel* or mud-fish. Trout, carp, and other fish have been introduced from oversea, and have proved a success. Trout are now established in many rivers in the Cape, Natal, and Transvaal Provinces, and in Rhodesia. The introduced carp thrive remarkably well in the numerous dams and enclosed waters in the country; and there is a continuous and growing demand for the ova and fry of trout and carp which are reared at the Government hatcheries.

7. **Statistics.**—The following tables (i) and (ii) give figures relating to the whaling and fisheries industries of the Cape of Good Hope:—

(i) WHALING INDUSTRY, CAPE OF GOOD HOPE, 1915 TO 1924.

YEAR.	COMPANIES OPERATING.	PERSONS EMPLOYED.		VESSELS EMPLOYED (STEAM).	WHALES CAPTURED.	VALUE OF CATCH.
		EUROPEAN	OTHER.			
						£
1915.....	3	175	235	13	855	106,100
1916.....	4	204	320	16*	925	132,500
1917.....	3	169	322	14	1,047	227,260
1918.....	3	155	250	13†	643	176,433
1919.....	2	130	177	12‡	640	237,375
1920.....	2	85	230	16	674	193,710
1922§.....	2	101	310	13	1,008	‖
1923.....	2	118	304	13	1,435	‖
1924.....	2	102	223	16	1,540	‖

* Exclusive of 3 motor-boats. † Exclusive of 2 motor-boats. ‡ Exclusive of 4 motor-boats.
§ No figures available for 1921. ‖ Not available.

(ii) FISHERIES (EXCLUDING WHALING), CAPE OF GOOD HOPE, 1914 TO 1924.

YEAR.	FISH LANDED.		PERSONS EMPLOYED (ALL RACES).	VESSELS EMPLOYED.		
	Quantity.	Value.		Steam and Motor-boats.	Sailing and Rowing-boats.	TOTAL.
	lb.	£				
1914.....	*	*	4,542	88	874	962
1915.....	*	30,819	3,911	83	735	818
1916.....	*	*	3,600	110	725	835
1917.....	10,089,709†	121,561	3,910	130	676	806
1918.....	7,973,212‡	67,095	4,597	157	730	887
1919.....	23,494,629	171,563	4,761	154	773	927
1920.....	*	*	2,200	201	810	1,011
1921.....	38,213,362	336,040	4,127	192	764	956
1922.....	26,232,481	232,054	4,029	227	775	1,002
1923.....	37,496,869	369,099	3,804	198	634	832
1924.....	36,076,305	370,421	3,801	207	668	875

* No figures available.

† Represents catch of the following stations: Simonstown (including all stations in southern part of Cape Peninsula), Hout Bay, Bredasdorp (Struis Bay), Mossel Bay, and Knysna.

‡ Represents catch at the stations mentioned in the preceding note and at Somerset Strand.

§ 2. The Fishing Industry of Natal.

1. **Early Legislation.**—As early as the year 1867 the fisheries of Natal were made the subject of legislation, a law being promulgated in that year to regulate the capture of fish within the bay or harbour of Natal. An amended Law (No. 13 of 1880) made extended provision for the same purpose and over the same area. By this law licences for the capture of fish by fish kraals and certain specified nets were obtainable on payment of an annual licence fee of £1. Contraventions of the enactment were punishable by fine, or in certain cases by imprisonment for a period not exceeding one month. Half the amount of fines recovered was payable to informers. In 1881 the Government of Natal appointed a commission to inquire into the subject of the pollution of streams in the coast districts of Natal. This Commission, while not directly connected with the fishing industry, put forward valuable recommendations affecting the interests of the Natal fisheries.

2. **Later Legislative Provision.**—In 1883 the Natal Fisheries Industry Commission recommended the framing of an amended and more comprehensive law, with the result that in the ensuing year the *Fisheries Law* (No. 21 of 1884) was passed with jurisdiction extending to all waters of the Colony of Natal in which fish were found. The control of the waters of the bay of Port Natal, of the ocean beach to Umgeni, and over the tidal waters of the rivers Umgeni, Umbilo, and Umhlatuzana, was vested in the Natal Harbour Board, and of all other districts in the magistracy of the Division. This law contained provisions and penalties similar to those previously in existence, and also fixed close seasons. Provision was further made for the taking and culture of oysters, whilst the pollution of fishing areas was also dealt with. Laws No. 18 of 1887, No. 27 of 1890, and No. 17 of 1901, extended the provisions of the law referred to, and further regulated and protected salmon and trout fisheries. In 1903 a change in the administration of these enactments was brought about by the appointment of a fisheries inspector, and the gradual absorption of the administrative work in so far as coastal fisheries were concerned, in one office, under the direction of the secretary to the Natal Harbour Department. As a result of the experience thus gained, the *Coast Fisheries Act* (No. 31 of 1906), operative from the 1st January, 1907, was promulgated repealing all existing statutes relating to coast or sea fisheries, the inland or fresh-water fisheries being governed as previously. From that date the Natal Fisheries Department became more fully organized. An extended scheme of licensing was instituted. The fees ranged from 10s. to £10 per annum, according to the nature of the licences issued, and the penalties for contraventions of the law were increased. The Act of 1906 was amended and added to by the Natal Provincial Council in Ordinances No. 12 of 1912, No. 2 of 1913, and No. 4 of 1914, dealing principally with the whaling industry and the question of pollution. In view of the larger experience gained, the greater interest displayed in the potential value of the local fisheries, and the more extended operations of those concerned, the opportunity was taken in 1916 of re-codifying the governing enactments by the passage through the Natal Provincial Council of the *Natal Fisheries Ordinance,*

No. 11 of 1916, a measure which provides for the conservation, control, protection, and regulation of the fisheries of Natal. This Ordinance embraced the coastal and inland fisheries and virtually repealed all previous enactments; and it is anticipated that the measure will prove of considerable value. The Ordinance became operative on the 1st July, 1916, but only of practical effect from the 1st January, 1917, with the promulgation of a code of regulations. The Ordinance and Regulations were drafted by the Natal Fisheries Advisory Board and the Natal Fisheries Board respectively. Provision is made for a comprehensive system of licensing and for effective supervision, while substantial penalties are enforceable for offences. In its terms the Ordinance provides for effective supervision under the Natal Fisheries Department, and for the constitution of the Natal Fisheries Board, while prospective work in the direction of scientific inquiry and development are amply provided for when the Administration is able to undertake or direct such action in the interests of the industry.

Regulations governing the licensing and control of the Inland Fisheries were promulgated and became operative on the 1st September, 1919.

3. **Natal Fisheries Department.**—The establishment of the Natal Fisheries Department at the end of 1922 consisted of (*a*) the Natal Fisheries Board of nine members, with the Principal Fisheries Officer as secretary; (*b*) the officials of the Department; (*c*) forty-five persons acting as honorary fisheries inspectors in the various districts of the Province; and (*d*) the Curator, Provincial Trout Hatchery at Estcourt.

4. **Commissions and Boards.**—In 1901 certain investigations on Natal Fisheries were conducted under the direction of Dr. J. D. F. Gilchrist, Government Biologist of the Cape of Good Hope, during a limited period of the year and over a limited area. The results of these investigations will, it is proposed, be followed by extended inquiries leading to a more established industry, the potentialities of which are now being fully realized. The recommendations of Government Inquiry Commissions in 1911 and 1914 were followed in December of the latter year by the appointment of the Natal Fisheries Advisory Board; and this body was succeeded on the 1st July, 1916, by the Natal Fisheries Board constituted under the Ordinance of that year. As a result of representations made in the Provincial Council, another Commission was, in December, 1920, appointed by the Administrator to investigate and report on matters affecting the fishing industry in the Province, and a report by this body was issued on the 22nd April, 1921, the recommendations contained therein receiving the attention of the Administration. One of the recommendations, which has been adopted, was to the effect that the Board be strengthened by the appointment of two additional members, one representing the European industry and the other the Indian fishermen, the latter representative to be a European. The Board is composed of nine members.

5. **Fish Varieties.**—The following list includes the more important edible species of fish obtained on the Natal coasts:—

FISH FOUND IN NATAL WATERS.

Local Name.	*Scientific Name.*	*Local Name.*	*Scientific Name.*
Barracuda	Cybium commersoni.	Pampano	Trachynotus ovatus.
Blackfish	Dinoperca queketti.	Parrotfish	Julis umbrostigma.
Blacktail	Sargus rondeletti.	Prodigal Son	Elacate nigra.
Bream, Silver	Chrysophrys natalensis.	Pike, Sea	Sphyraena jello.
Bream, River	Chrysophrys aestaurius.	Queen-fish	Chorinemus sancti-petri.
Bream, Black	Chrysophrys robinsoni.	Ribbon-fish	Trichuirus haumela.
Bream, Butter	Cyphosus fuscus..	Salmon	Sciaena aquila.
Bream, Bronze	Cantharus natalensis.	Salmon, Rock	Lutianus salmonoides.
Brusher	Sargus durbanensis.	Sand-fish	Platycephalus insidiator.
Cod, Rock*	Epinephilas Sp.	Shad	Pomatomus satatrix.
Concertina Fish	Drepane punctata.	Springer	Elops machnata.
Galjoen	Dipterodon capensis.	Snoek	Cybium lineolatum.
Garrick	Lichia amia.	Stonefish	Scorpis lithophilus.
Geelbek	Otolithus aequidens.	Surgeon	Acanthurus matoides.
Greyskin	Diagramma griseum.	Tasselfish	Umbrina dussumieri.
Grunter	Pristipoma eperculare.	Threadfin	Polynemus sextarius.
King-fish	Caranx hippos.	Wrasse	Chaerops natalensis.
Lady-fish	Abula conorhynchus.	Zebra	Sargus cervinus.
Moonfish	Trachynotus russellii.		
Mullet, Red	Upeneus natalensis.		
Mullet, Grey	Mugil capito.	And Clupeiod Sp., Herrings, Sardines, Anchovies etc.	
Mussel Cracker	Pagrus nigripinnis.		

* A large number of species of rock-cod, including the Black Sea Bass.

The species of edible fish generally taken by line-fishing vessels near shore include the following :—

Local Name.	*Scientific Name.*	*Local Name.*	*Scientific Name.*
Barbel	Galeichthys feliceps.	Leather Jacket	Bazlistes mitis.
Blueskin	Dentex natalensis.	Scavenger	Lethrinus scoparius.
Dagger-head	Pagrus pugicephalus.	Scotchman	Dentex praeorbitalis.
Dane	Chrysophrys dentatus.	Slinger	Chrysophrys puniceus.
Englishman	Chrysophrys anglicus.	Soldier	Dentex miles.
Grayskin	Lutianus griseus.	Wrasse, Deep Sea.	Cossyphus sp.

The edible species for which little or no market use is found include the following :—

Local Name.	*Scientific Name.*	*Local Name.*	*Scientific Name.*
Dog-fish	Scyllium sp.	Shark, Blackfin	Carcharias limbatus.
Eels, Rock*	Muraena.	Shark, Blue	Odontaspis tricuspidatus.
Hounds	Mustelus sp.	Shark, Tiger	Galeocerda rayneri.
Ray, Eagle	Dicerobatis eregoodoo.	Shark, Hammer-headed	Zygaena sp.
Ray, Marbled	Trygon uarnak.	Shark, Sand	Rhinobatus columnae.
Ray, Short Tail	Trygon sp.	Skate, Bonnet	Aetobatis narinari.
Saw-fish	Pristis sp.		
Shark, Black	Carcharias melanopterus.		

* Several species.

6. **Trout and Fresh Water Angling.**—Trout were first introduced some thirty years ago into the upper reaches of various streams flowing from the Drakensberg. As the result of suitable feeding and climatic conditions the fish have increased rapidly in numbers, and anglers now obtain excellent sport in the midland rivers of Natal. The Polela, Loteni, Bushman's, Mooi, and Little Mooi rivers are most frequented by anglers and provide the best sport, though a number of less accessible streams also carry good stocks of trout. The Mooi River, with its picturesque scenery and large stock of fish, is probably the best fishing resort in Natal. Some rivers, such as the Mooi and Little Mooi, contain only brown trout, while others, such as the Polela, have been stocked with the rainbow variety.

A trout-fishing licence for the season can be obtained at a cost of £1 (one pound) from the Principal Fisheries Officer, Durban, or from the magistrates of the various districts. The open season extends from 1st September to 30th April of the following year. A fully-equipped trout hatchery under a curator has been established at Estcourt.

In the lower reaches of almost all Natal rivers scale fish, barbel, and eels of large size are plentiful.

7. **Revenue and Expenditure.**—Statistical returns of the Natal Fisheries are not available prior to 1907, and then only on information furnished to a limited extent. As the importance of the work became fully evident, and facilities for securing statistical data were gained, records were instituted for comparative and other purposes.

So far as the figures and information are available, the following table may be taken as reflecting the position of the Natal Fisheries for a series of years :—

NATAL FISHERIES—REVENUE AND EXPENDITURE, 1919 TO 1924.

Particulars.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Revenue	1,353	1,260	1,225	1,240	1,318	1,307
Expenditure	1,600	4,269*	4,472*	2,951†	1,400	1,070

* Including part cost of fisheries survey—£2,524.
† Including a sum of £1,500 in respect of fisheries survey.

8. **Whaling Industry.**—The whaling industry in Natal waters was established in 1908 The species of whales found off the Natal coast include the following :—

		Oil Yield per Whale.
Humpback Whale	*Megaptera nodosa lalandii*	25–35 barrels.
Common Rorqual or Finner	*Balaenoptera physalus*	35–80 „
Blue Whale	*Balaenoptera musculus*	70–80 „
Rudolphi's Rorqual or Seihval	*Balaenoptera borealis*	10–25 „
Sperm, or Cachalot	*Physeter macrocephalus*	60–70 „
Spermaceti	—	10–15 „

Occasionally the Right Whale, or Noordkaper, is met with during the whaling period. The number of whales killed between the years 1908 and 1923 was 12,390. The Dolphin is abundant all the year round. The species found in Natal waters is *Gray's Tursiops catalania*, a species very destructive to shoal fish.

The subjoined particulars gives the results of the operations for a series of years :—

WHALING INDUSTRY, NATAL, 1920 TO 1924.

Particulars.	1920.	1921.	1922.	1923.	1924.
Companies operating.....No.	2	3	2	2	2
Capital invested.....£	424,047	524,027	428,000	427,475	427,982
Persons employed.....No.	489	736	400	521	815
Vessels employed.....No.	15	17	10	11	15
Whales captured.....No.	704	1,071	711	809	1,038
Oil produced.....Tons.	4,346	6,255	4,373	3,563	6,119
Fertilizers..... „	1,215	2,447	1,785	2,588	2,666
Boiled bone..... „	628	1,045	579	806	420
Whale finners..... „	23	27	12	19	18
Whale meat..... „	—	—	—	—	—
Value of production.....£	238,817*	188,800	126,127	147,351	191,779

* It is difficult for the companies to render accurate monthly returns, as most of the products of the whales are dispatched to European markets for sale on consignment, which necessarily means that the actual values are not obtainable until months later. Therefore, these figures must be treated as estimates only.

9. **Further Statistics.**—The following table gives the extent and value of the catch in Natal waters during a series of years, together with the average price per lb. :—

FISHERIES (EXCLUDING WHALING), NATAL, 1912 TO 1924.

Year.	Fish Landed.					Crustacea and Others.				Total Fish, Crustacea, etc.
	By Sea-going Craft.	By Seiners.	By Kraal.	By Licensed Anglers and by other means.	Total.	Prawns and Shrimps.	Crabs and Crayfish.	Turtle.	Oysters and Mussels.	
	(*a*) QUANTITY.									
1912–16 (average)	lb. 2,294,012	lb. 301,712	lb. 19,268	lb. 36,325	lb. 2,651,317	lb. 17,931	lb. 4,213	lb. 325	doz. 15,930	lb.* 2,673,786
1917....	2,378,554	349,068	7,678	26,104	2,761,404	13,134	2,380	—	17,741	2,776,918
1918....	1,967,123	338,558	5,844	17,361	2,328,886	24,203	1,761	—	15,444	2,354,850
1919....	1,978,005	212,543	10,617	33,945	2,235,110	27,576	4,507	—	16,638	2,267,193
1920....	2,786,882	327,565	11,450	50,800	3,176,697	21,863	4,391	150	22,021	3,203,101
1921....	2,717,733	248,369	12,639	33,162	3,061,903	28,290	8,063	—	14,680	3,098,256
1922....	2,718,836	266,007	10,152	78,740	3,073,735	31,550	10,192	—	18,234	3,115,477
1923....	2,925,302	403,931	7,973	83,664	3,420,870	44,488	12,693	—	28,442	3,478,051
1924....	2,577,146	227,870	8,127	39,256	2,852,399	28,949	12,481	—	26,230	2,881,348
	(*b*) VALUE.									
1912–16 (average)	£ 22,948	£ 2,669	£ 245	£ 450	£ 26,312	£ 729	£ 90	£ 3	£ 712	£ 27,846
1917....	25,974	3,049	107	327	29,457	575	61	—	873	30,966
1918....	21,976	3,500	85	217	25,778	816	48	—	754	27,396
1919....	21,608	3,350	180	609	25,747	972	128	—	813	27,660
1920....	35,660	5,162	234	1,007	42,063	1,140	156	3	1,086	44,448
1921....	50,003	3,343	294	1,095	54,735	1,257	263	—	734	56,989
1922....	50,575	3,690	222	1,394	55,881	1,354	292	—	901	58,428
1923....	54,235	4,640	185	1,424	60,484	1,495	406	—	1,212	63,597
1924....	48,659	3,272	195	745	52,871	1,079	369	—	1,042	55,361
	(*c*) AVERAGE PRICE PER LB.									
1912–16 (average)	d. 2·40	d. 2·12	d. 2·97	d. 2·96	d. 2·38	d. 10·10	d. 5·23	d. 1·89	(Per doz.). d. 10·75	d.* 2·44
1917....	2·62	2·09	3·35	3·00	2·56	10·51	6·15	—	11·82	2·60
1918....	2·68	2·48	3·49	3·00	2·66	8·09	6·54	—	11·71	2·72
1919....	2·62	3·78	4·06	4·30	2·76	8·45	6·81	—	11·72	2·84
1920....	3·07	3·78	4·91	4·76	3·18	12·50	8·47	4·00	12·00	3·25
1921....	4·41	3·23	5·58	3·16	4·25	10·66	7·82	—	12·00	4·35
1922....	4·33	3·33	5·23	4·26	4·36	10·30	6·87	—	12·00	4·43
1923....	4·50†	3·00	5·50	4·50	—	12·08	8·35	—	12·00‡	—
1924....	4·53	3·44	5·75	4·86	4·64	8·97	7·12	—	9·50	4·44

* Excluding oysters and mussels (1,100 doz.).
† Average price of all fish, excluding soles, which average 9·50d. per lb.
‡ Mussels 2·00d. per dozen.

The table given below indicates the number of fishing vessels employed in connection with the Natal fishing industry :—

VESSELS EMPLOYED, NATAL, 1918 TO 1924.

Heading.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Surf fishing-boats.....	55	41	41	32	35	33	45
Steam fishing-boats.....	9	6	5	6	8	9	11
TOTAL.....	64	47	46	38	43	42	56

§ 3. Fisheries Committee.

A Committee consisting of Col. G. T. Nicholson, M.Inst.C.E., Dr. J. D. F. Gilchrist, Mr. C. L. W. Mansergh, C.B.E., I.S.O., and Captain R. A. Leigh, with Mr. R. W. Fair as Secretary, was appointed by the Hon. the Minister of Mines and Industries towards the close of 1925 to inquire into and report upon—

(*a*) the construction or improvements of fishing harbours and shelters, and landing places for boats used in in-shore fisheries at suitable points on the coast, and
(*b*) the opening up and development of ports for the accommodation of—
  (1) trawlers and larger fishing boats used in deep-sea fishing; or
  (2) smaller craft used in in-shore fishing.

The report of the Committee has not yet been published.

§ 4. Inland Fisheries Survey.

The first report on the Inland Waters Fisheries Survey, dated March, 1926, has been issued by the Department of Mines and Industries, and deals with a preliminary survey of the rivers in the South-west districts of the Cape, the Cape Midlands and Border districts, Natal, and the Southern Free State, and their suitability for the introduction into and acclimatization of foreign varieties of fish. The investigator, Mr. S. A. Hey, concludes, *inter alia*, that it would be practicable to introduce successfully European or American varieties of salmon and sea trout into the rivers of the South-western Cape Province, and suggests the stocking with fresh-water trout, perch, or tench of many of the rivers hitherto unexploited in the areas visited.

CHAPTER XVI.

MINES.

§ 1. Organization of Mines Department.

The Mines Department is a separate division of the Department of Mines and Industries, which controls all mining and industrial matters within the Union, including the labour problem in certain of its aspects. The organization of the Mines Division has been built up from that of the Department of Mines of the Transvaal Republic, which was taken over by the Colonial Government at the conclusion of the South African War. When the Union was constituted the various Mines Administrations of the other Colonies were absorbed so as to form one Mines Administration for the Union under the Minister of Mines (now Minister of Mines and Industries). In the Republican days and during the régime of the Crown Colony Government, the head office of the Mines Administration was in Johannesburg under the Commissioner of Mines, but on the advent of Responsible Government in the Transvaal it was found convenient to move the head office to Pretoria so as to be in close touch with the Minister.

The organization of the Division may be summarized as follows :—

Office.	Functions.
Head Office, Pretoria—	
The Hon. the Minister of Mines and Industries Secretary for Mines and Industries..... Under Secretary for Mines and Industries	General administration of mining laws of the Union.
District Offices—	
Mining Commissioners— Johannesburg (including the Witwatersrand) Heidelberg..... Barberton..... Pietersburg..... Pilgrims Rest..... Klerksdorp..... Pretoria and Ottoshoop..... Bloemfontein..... Barkly West..... Cape Town..... Pietermaritzburg.....	Issue of all prospecting licences and mining titles under the Mining Acts of the four Provinces of the Union, including those dealing with diamonds, and carrying out local administration of those laws under the Head Office.
Registrar of Mining Titles, Johannesburg	The central registration of all Transvaal Mining Titles and Witwatersrand Township stands.
Engineering Branch— Government Mining Engineer, Government Mine Surveyor, Chief Inspector of Explosives, and Inspectors of Mines and Machinery and Explosives	1. Advisory to the Government on technical mining matters. 2. The safety of life and limb and the safeguarding of health in the working of all mines. 3. The licensing of all boilers and inspection of prime moving machinery in mines and works (*Mines and Works Act*, 1911). 4. The licensing and safety of persons in the manufacture of explosives (*Explosives Act*, 1911). 5. The issue of certificates of competency to persons employed in mining. 6. The valuation of mines and the surveillance of mines in which the Government receives a direct share of the profit.
Geological Survey, Pretoria— Director of Geological Survey and Geologists	Geological survey of the Union. Preparation of geological memoirs. Identification of minerals for the public.

§ 2. Statistics of Mineral Production.

1. **Value of Mineral Production.**—The table hereunder gives the total value of the principal minerals produced in the Union from the earliest dates of existing records. The value of gold is calculated at the standard rate of £4·24773 per fine ounce up to 1919, when the gold premium came into effect, as from the 24th July (see section 3, paragraph 16 below). Copper and tin are valued on the estimated pure metal contained in shipments according to the average current prices in London.

VALUE OF PRODUCTION OF PRINCIPAL MINERALS IN UNION UP TO 31st DECEMBER, 1924.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
*Gold	21,947	86,094	835,546,724	—	835,654,765
Diamonds	179,465,747	—	35,324,030	21,449,055	236,238,832
Coal	2,008,069	26,078,903	33,009,877	3,780,955	64,877,804
Copper	20,103,536	389	3,794,036	—	23,897,961
Tin	61,427	—	5,048,152	—	5,109,579
TOTAL.....£	201,660,726	26,165,386	912,722,819	25,230,010	1,165,778,941

* Including gold premium, valued at £32,740,264, from the 24th July, 1919.

2. **Details of Mineral Production.**—The total quantity and value of the mineral production of the Union are given hereunder (i) for a period of years and (ii) for the latest year, according to various minerals in each Province :—

(i) MINERAL PRODUCTION OF UNION, 1918 TO 1924.

Classification.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
			(*a*) QUANTITY.				
Antimony.....ton	99	32	—	—	—	—	—
Arsenic..... „	18	8	11	2	3	6	106
Asbestos..... „	3,674	3,932	7,112	5,122	4,389	8,393	7,241
Bismuth..... „	—	0·4	—	—	—	—	—
Chrome Ore..... „	—	—	—	400	96	—	2,056
Coal..... „	9,877,325	10,266,135	11,473,464	11,396,905	9,734,313	11,917,036	12,491,905
Coke..... „	31,739	22,478	22,942	24,954	40,591	59,250	74,101
Copper..... „	6,875	4,875	10,880	158	706	9,459	9,959
Corundum..... „	3,876	179	261	123	2,024	2,815	1,868
Diamonds..met. car.	2,604,651	2,656,651	2,612,511	828,036	669,559	2,053,095	2,440,398
Flint.....ton	220	*	*	*	*	8	—
Gold.....fine oz.	8,418,379	8,331,651	8,158,455	8,128,710	7,009,858	9,149,073	9,575,040
Graphite.....ton	79	86	73	47	42	60	55
Gypsum..... „	2,638	*	*	*	*	6,419	10,162
Iron Ore..... „	4,879	3,602	2,564	2,416	2,109	574	—
Iron Pyrite..... „	4,630	5,532	3,469	4,353	3,139	3,269	2,589
Kaolin..... „	—	—	—	—	20	33	—

* Included in Quarry Products, quantity not available.

(i) MINERAL PRODUCTION OF UNION, 1918 TO 1924—(*continued*).

(*a*) QUANTITY—*continued*.

Classification.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Lead.....ton	162	756	580	212	4,453	5,659	5,214
Magnesite..... „	833	1,024	1,419	1,452	1,060	1,367	2,012
Manganese..... „	544	155	67	303	141	433	584
Mica..... „	5	3	1	1	4	16	810
Mineral Paints.. „	736	240	536	117	293	239	317
Nickel..... „	—	—	—	—	—	—	—
Osmiridium..fine oz.	—	—	—	510	762	1,784	4,107
Silver.....fine oz.	877,522	891,304	892,593	830,329	1,115,676	1,373,930	1,396,943
Soda.....ton	764	52	—	312	127	96	930
Sulph. of Ammonia„	2,503	3,762	1,844	918	207	509	1,097
Talc..... „	670	757	682	413	341	355	565
Tar.....gall.	—	1,465	25,167	46,085	80,462	179,187	186,171
Tin.....ton	2,206	1,630	2,463	1,425	612	1,424	2,051
Tungsten..... „	19	4	—	—	—	—	—
Vanadium..... „	—	—	—	—	—	54	—
Zinc..... „	—	—	2,349	1,280	—	—	—

(*b*) VALUE.

	£	£	£	£	£	£	£
Antimony.....	2,589	556	—	—	—	—	—
Arsenic.....	1,759	663	655	120	105	290	4,260
Asbestos.....	54,037	66,426	114,195	103,067	81,230	121,453	110.075
Bismuth.....	—	300	—	—	—	—	—
Chrome Ore.....	—	—	—	400	108	—	2,446
Coal.....	3,224,597	3,416,244	4,519,665	5,072,401	3,395,176	3,713,706	3,824,746
Coke.....	68,662	47,312	48,535	51,180	57,758	76,294	90,537
Copper.....	342,105	234,445	418,269	6,446	38,622	404,511	530,824
Corundum.....	26,260	1,486	1,446	770	15,492	22,543	13,284
Diamonds.....	7,114,867	11,734,495	14,762,899	3,103,448	2,266,631	6,038,207	8,033,406
Flint.....	1,491	*	*	*	*	*	*
Gold ‡.....	35,759,003	39,279,590	45,605,764	43,082.162	32,343,485	41,574,945	44,739,377
Graphite.....	2,294	2,630	2,339	1,496	1,250	1,837	1,597
Gypsum.....	6,843	*	*	*	*	*	*
Iron Ore.....	2,729	1,081	811	689	893	230	—
Iron Pyrite.....	7,002	8,894	5,014	6,632	4,714	4,906	3,109
Kaolin.....	—	—	—	—	20	40	—
Lead.....	1,886	4,973	5,270	3,363	94,720	133,573	153,288
Magnesite.....	2,184	2,723	3,780	3,581	2,372	2,943	4,159
Manganese.....	1,965	776	277	866	246	1,584	1,300
Mica.....	1,185	369	500	802	664	1,038	2,296
Mineral Paints.....	1,427	572	1,049	333	636	468	634
Nickel.....	—	—	—	—	—	—	—
Osmiridium.....	—	—	—	6,801	13,165	43,528	102,886
Silver.....	187,608	228,804	245,871	137,441	171,427	197,888	212,470
Soda.....	11,099	753	—	4,527	1,588	1,018	9,844
Steatite.....	—	*	—	*	*	—	*
Sulphate of Ammonia	86.299	102,930	63,088	19,470	3.046	7,531	12,987
Talc.....	1,713	2,170	2,227	1,306	1,023	1,065	1,592
Tar.....	—	135	3,382	5,104	3,621	8,597	9,180
Tin.....	440,995	277,925	435,680	139,688	59,986	170,337	305,398
Tungsten.....	3,647	699	—	—	—	—	—
Vanadium.....	—	—	—	—	—	2,716	—
Zinc.....	—	—	15,614	8,410	—	—	—
Other Coal By-products.....	—	—	—	528	71	1,276	1,840
Quarry Products...	61,525	68,275	75,647	78,693	56,032	100,922	172,215
† TOTAL.....£	47,415,771	55,485,226	66,331,977	51,839,724	38,614,081	52,633,446	58,343,750

* Included in "Quarry Products."

† Particulars regarding the following are included in tables given in Chapter XVII (Manufacturing Industries):—Lime, salt, and miscellaneous articles (bricks, cement, etc.).

‡ Premium included 1919, 1920, 1921, 1922, 1923, and 1924—£3,888,981, £10,950,842, £8,553,598, £2,567,501, £2,712,151, and £4,067,191 respectively.

(ii) MINERAL PRODUCTION OF EACH PROVINCE IN THE UNION, 1924.

(*a*) QUANTITY.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Arsenic.....ton	—	—	106	—	106
Asbestos..... „	3,001	—	4,240	—	7,241
Chrome Ore..... „	—	—	2,056	—	2,056
Coal..... „	5,329	4,713,291	6,790,689	982,596	12,491,905
Coke..... „	—	74,101	—	—	74,101
Copper..... „	3,384	—	6,575	—	9,959
Corundum..... „	—	—	1,868	—	1,868
Diamonds.....metric carat	1,290,119	—	851,661	298,618	2,440,398
Gold.....fine oz.	3	119	9,574,918	—	9,575,040
Graphite.....ton	—	—	55	—	55
Iron Ore..... „	—	—	—	—	—
Iron Pyrite..... „	—	—	2,589	—	2,589
Lead..... „	253	—	4,961	—	5,214
Magnesite..... „	—	—	2,012	—	2,012
Manganese..... „	—	—	584	—	584
Mica..... „	—	—	810	—	810
Mineral Paints..... „	—	317	—	—	317
Osmiridium.....fine oz.	—	—	4,107	—	4,107
Silver..... „	—	11	1,396,932	—	1,396,943
Soda.....ton	—	—	930	—	930
Sulphate of Ammonia..... „	—	1,097	—	—	1,097
Talc..... „	—	—	565	—	565
Tar.....gall.	—	186,171	—	—	186,171
Tin.....ton	—	—	2,051	—	2,051
Vanadium..... „	—	—	—	—	—
Zinc..... „	—	—	—	—	—

(*b*) VALUE.

	£	£	£	£	£
Arsenic.....	—	—	4,260	—	4,260
Asbestos.....	38,370	—	71,705	—	110,075
Chrome Ore.....	—	—	2,446	—	2,446
Coal.....	3,783	1,824,292	1,723,228	273,443	3,824,746
Coke.....	—	90,537	—	—	90,537
Copper.....	187,745	—	343,079	—	530,824
Corundum.....	—	—	13,284	—	13,284
Diamonds.....	4,907,242	—	2,161,416	964,748	8,033,406
Gold.....	15	557	44,738,805	—	44,739,377
Graphite.....	—	—	1,597	—	1,597
Iron Ore.....	—	—	—	—	—
Iron Pyrite.....	—	—	3,109	—	3,109
Kaolin.....	—	—	—	—	—
Lead.....	2,132	—	151,156	—	153,288
Magnesite.....	—	—	4,159	—	4,159
Manganese.....	—	—	1,300	—	1,300
Mica.....	—	—	2,296	—	2,296
Mineral Paints.....	—	634	—	—	634
Osmiridium.....	—	—	102,886	—	102,886
Silver.....	—	2	212,468	—	212,470
Soda.....	—	—	9,844	—	9,844
Sulphate of Ammonia.....	—	12,987	—	—	12,987
Talc.....	—	—	1,592	—	1,592
Tar.....	—	9,180	—	—	9,180
Tin.....	—	—	305,398	—	305,398
Vanadium.....	—	—	—	—	—
Zinc.....	—	—	—	—	—
Other Coal By-products.....	—	1,802	38	—	1,840
Quarry Products.....	23,114	46,717	96,621	5,763	172,215
TOTAL.....£	5,162,401	1,986,708	49,950,687	1,243,954	58,343,750

3. **Wages Earned in Mining.**—The salaries and wages earned by European and other employees of mining and allied concerns during 1924 amounted to £17,733,534, distributed as shown in table (i) hereunder. Wages earned in lime works, salt works, and miscellaneous factories are not included in table (i). Earnings on alluvial diamond diggings cannot be ascertained with any degree of accuracy and are therefore excluded. Table (ii) shows in comparative form the earnings from 1910, and in table (iii) the amounts paid out in salaries and wages for a period of years are analysed according to Provinces and the race of the employees. In table (iv) are given particulars for a series of years of the aggregate and average earnings and payments to European employees on the Witwatersrand gold mines. These figures are calculated from the average number of persons actually in service. The actual average annual earnings of all the persons who find employment on the mines must necessarily be less :—

(i) **SALARIES AND WAGES OF EMPLOYEES ON MINES AND IN ALLIED CONCERNS, 1924.**

Province.	Gold Concerns.			Diamond Mines.	Coal Mines and By-products Works.	Other Minerals.	Miscellaneous Works.‡	Total.
	Large Mines.	Small Mines and Alluvial Diggings.	Metallurgical Works and Tailings Works.					
	£	£	£	£	£	£	£	£
CAPE OF GOOD HOPE.								
European.....	—	—	—	554,178	713	21,568	6,436	582,895
Asiatic.....	—	—	—	—	—	—	—	—
Native and other Coloured.....	—	78	—	259,895†	2,147	61,326	8,320	331,766
TOTAL....£	—	78	—	814,073	2,860	82,894	14,756	914,661
NATAL.								
European.....	—	603	—	—	327,137	115	22,285	350,140
Asiatic.....	—	—	—	—	65,555	—	4,598	70,153
Native and other Coloured.....	—	801	235	—	434,917	190	12,042	448,185
TOTAL....£	—	1,404	235	—	827,609	305	38,925	868,478
TRANSVAAL.								
European.....	7,323,016	42,408	40,538	137,892	314,328	151,825	254,941	8,264,948
Asiatic.....	16,529	—	—	—	289	—	—	16,818
Native and other Coloured.....	6,369,753*	51,224	12,564	151,991	407,243	140,193	70,310	7,203,278
TOTAL....£	13,709,298	93,632	53,102	289,883	721,860	292,018	325,251	15,485,044
ORANGE FREE STATE.								
European.....	—	—	—	186,908	48,038	—	1,033	235,979
Asiatic.....	—	—	—	—	—	—	—	—
Native and other Coloured.....	—	—	—	158,180	69,177	—	2,015	229,372
TOTAL....£	—	—	—	345,088	117,215	—	3,048	465,351
UNION....£	13,709,298	95,114	53,337	1,449,044	1,669,544	375,217	381,980	17,733,534
Percentage of Total.....	78·1			8·2	9·4	2·1	2·2	100·0

* Includes £12,192 paid for convict labour.
† Includes £20,182 paid for convict labour.
‡ Includes power supply companies and quarries.

(ii) SALARIES AND WAGES OF EMPLOYEES ON MINES AND IN ALLIED CONCERNS, 1910 TO 1924.

Year.	Gold Mines and Allied Concerns.	Diamond Mines.	Coal Mines.	Other Minerals.	Miscellaneous Works.†	Total.
	£	£	£	£	£	£
*1910	8,098,034	1,535,449	485,759	187,250	108,883	10,415,375
1911	14,383,448	2,789,589	842,190	302,271	499,849	18,817,347
1912	14,266,300	2,843,703	879,529	338,785	595,448	18,923,765
1913	13,558,896	3,031,790	956,221	354,898	565,826	18,467,631
1914	12,595,563	2,058,364	991,822	328,099	544,430	16,518,278
1915	13,655,373	352,336	1,001,315	359,031	511,620	15,879,675
1916	14,374,810	1,006,239	1,169,586	417,520	537,506	17,505,661
1917	14,221,841	1,658,300	1,283,871	446,457	568,494	18,178,963
1918	14,537,493	1,848,895	1,412,786	403,375	414,757	18,617,306
1919	15,077,361	2,218,254	1,529,368	387,237	349,405	19,561,625
1920	17,463,281	2,852,701	1,800,510	402,282	415,201	22,933,975
1921	16,687,653	1,365,843	2,095,771	353,439	420,970	20,923,676
1922	11,505,274	685,377	1,584,745	252,314	313,926	14,341,636
1923	13,343,864	1,295,007	1,601,376	336,122	339,306	16,915,675
1924	13,857,749	1,449,044	1,669,544	375,217	381,980	17,733,534

* June to December.
† Brick, cement, and pottery works are included up to 1917, and lime and salt works up to 1918. Thereafter figures relative to such are included in Chapter XVII.

(iii) SALARIES AND WAGES OF EMPLOYEES ON MINES AND IN ALLIED CONCERNS, SHOWING PROVINCE AND RACE, 1918 AND 1920 TO 1924.

Province and Race.	1918.	1920.	1921.	1922.	1923.	1924.
CAPE OF GOOD HOPE—	£	£	£	£	£	£
All Races	1,332,920	1,912,995	1,025,071	493,913	880,394	914,661
NATAL—						
All Races	628,799	731,760	905,976	775,627	784,351	868,478
TRANSVAAL—						
All Races	16,230,733	19,564,483	18,621,596	12,859,968	14,850,389	15,485,044
ORANGE FREE STATE—						
All Races	424,854	724,737	371,033	212,128	400,541	465,351
UNION—						
European	11,214,410	14,641,355	13,258,606	7,423,941	8,829,459	9,433,962
Asiatic	111,916	116,866	110,400	93,471	85,023	86,971
Native and other Coloured	7,290,980	8,175,754	7,554,670	6,824,224	8,001,193	8,212,601
All Races	18,617,306	22,933,975	20,923,676	14,341,636	16,915,675	17,733,534

(iv) AGGREGATE AND AVERAGE EARNINGS AND PAYMENTS TO EUROPEAN EMPLOYEES (INCLUDING STAFF), WITWATERSRAND GOLD MINES, 1907 TO 1924.

Year.	Average Number in Service.	Amount Earned.	Average Earnings per Head.	Salaries to Medical Officers.	Special Payments.‡	Total Payments.
		£	£	£	£	£
1907	16,756	5,894,182	352	—	—	5,894,182
1908	17,593	5,861,243	333	—	—	5,861,243
1909	20,625	6,746,598	327	14,074	—	6,760,672
1910	23,652	7,673,472	324	28,388	—	7,701,860
1911	24,708	8,195,304	332	31,195	—	8,226,499
1912	23,817	7,834,455	329	31,484	—	7,865,939
1913	23,104	7,503,574	325	33,527	—	7,537,101
1914	20,971	6,790,078*	324*	33,937	30,017	6,854,032
1915	21,847	7,116,481*	326*	31,692	90,531	7,238,704
1916	22,085	7,423,448*	336*	33,578	276,483	7,733,509
1917	22,194	7,831,239*	353*	31,818	320,831	8,183,888
1918	22,597	8,334,882*	369*	32,383	279,991	8,647,256
1919	22,992	9,029,322*	408*	29,909	156,424	9,215,655
1920	22,014	11,004,927*	485*	35,422†	6,907	11,047,256
1921	20,825	10,314,448*	495*	32,215	448	10,347,111
1922	13,833	5,536,508§	400*	29,375	—	5,565,883
1923	17,666	6,541,565§	370*	28,594	—	6,570,159
1924	18,516	7,063,388§	381*	29,194	—	7,092,582

* Exclusive of medical officers and men on active service.
† Including special payments on behalf of men on active service.
‡ To or on behalf of men on active service.
§ Exclusive of medical officers.

4. **Average Pay per Shift.**—The average pay per shift for underground employees on the Witwatersrand gold mines in June, 1918 to 1924, is shown in the table hereunder :—

AVERAGE PAY PER SHIFT, UNDERGROUND MINE EMPLOYEES ON WITWATERSRAND GOLD MINES, (JUNE) 1918 TO 1924.

Classification.	1918.*	1919.*	1920.†	1921.†	1922.†	1923.†	1924.†
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Shift Bosses	30 4	32 2	35 1	35 11	30 6	30 4	30 6
Timbermen	20 5	20 10	29 4	29 4	21 5	21 11	22 0
Pipemen	19 11	20 3	28 6	28 8	20 5	20 7	20 10
Fitters	22 3	22 7	30 7	30 10	22 10	22 10	23 5
Platelayers	19 10	20 3	28 6	28 8	20 5	20 7	20 10
Skipmen and Onsetters	17 0	17 3	25 4	25 9	16 6	16 10	17 3
Trammers (excluding Contractors)	16 5	17 2	25 11	25 10	17 8	18 2	17 9
Pumpmen	20 7	21 0	29 0	29 0	20 3	20 1	20 0
Miners—Machine Stoping.....Contract..	34 2	34 10	47 4	49 10	30 4	29 11	29 9
Day's pay	20 7	21 8	27 4	33 5	21 0	21 1	21 4
Hand Stoping.....Contract..	27 11	30 0	40 6	41 8	28 4	26 9	26 10
Day's pay	20 1	20 6	28 6	28 9	19 10	20 5	20 3
Machine Developing...Contract..	41 8	45 2	56 2	61 7	38 10	40 1	38 11
Day's pay	19 1	19 10	33 5	31 5	21 3	20 4	20 4
Shaft Sinkers.....Contract..	58 7	47 3	65 0	68 1	35 1	47 9	56 8
Day's pay	27 11	35 2	45 4	46 0	22 11	25 0	43 5
Engine-drivers (Winding)	23 9	23 11	31 2	32 4	23 7	24 10	24 2
Winchdrivers	14 5	14 7	24 2	23 11	16 3	16 8	15 4

* Excluding war allowance and overtime.
† Including allowances but excluding overtime.

5. **Labour on Mines, etc.**—The subjoined tables show, in respect of persons employed on mines and in allied concerns in the Union, (i) the average number for each of a series of years, and (ii) the average number for 1924 :—

(i) **AVERAGE NUMBER OF EMPLOYEES, MINES AND ALLIED CONCERNS, 1911 TO 1924.**

Year.	Gold.	Diamonds.	Coal.	Other Minerals.	Other.	Total.	Europeans.	Non-Europeans.
1911...	228,875	60,476	24,446	6,159	8,548	**328,504**	38,282	290,222
1912...	231,355	63,041	24,169	6,795	9,747	**335,107**	37,475	297,632
1913...	221,183	66,332	26,363	6,559	8,670	**329,107**	37,467	291,640
1914...	202,385	42,077	27,303	6,214	8,118	**286,097**	31,944	254,153
1915...	229,255	9,325	25,824	7,349	7,446	**279,199**	28,836	250,363
1916...	238,054	25,907	29,252	9,174	8,293	**310,680**	31,124	279,556
1917...	216,742	42,071	31,488	9,896	8,222	**308,419**	32,897	275,522
1918...	211,773	39,501	31,806	8,033	10,239	**301,352**	33,410	267,942
1919...	203,610	44,877	32,715	7,421	11,753	**300,376**	36,164	264,212
1920...	207,808	56,922	34,495	7,329	14,337	**320,891**	39,813	281,078
1921...	202,930	27,276	39,911	5,981	14,703	**290,801**	32,626	258,175
1922...	186,339	26,694	35,263	4,820	13,749	**266,865**	25,221	241,644
1923...	208,502	38,121	34,779	7,067	2,829	291,298	30,652	260,646
1924...	210,986	46,595	36,841	8,060	3,464	**305,946**	31,928	274,018

(ii) **AVERAGE NUMBER OF PERSONS EMPLOYED ON MINES AND IN ALLIED CONCERNS, UNION, 1924.**

Classification.	Number of Persons.				Proportion of Total Persons Employed.			
	European.	Asiatic.	Natives and other Coloured.	Total.	European.	Asiatic.	Natives and other Coloured.	Total.
Gold	19,448	183	191,355	210,986	6·36	0·06	62·54	68·96
Diamonds	9,421	26	37,148	46,595	3·08	0·01	12·14	15·23
Coal	1,736	1,949	33,156	36,841	0·57	0·63	10·84	12·04
Other Minerals	504	—	7,556	8,060	0·16	—	2·48	2·64
Other	819	2,645		3,464	0·27	0·86		1·13
TOTAL	31,928	274,018		305,946	10·44	89·56		100·00

A territorial analysis of the native labourers employed on mines and works in the Transvaal will be found in Chapter XXVI.

6. **Nationality of Mine Employees.**—The following tables give the number of European mine employees classified according to their country of birth. In each case the percentage of such number to the total number is also shown:—

(i) NATIONALITY OF EUROPEAN MINE EMPLOYEES IN SERVICE IN THE UNION ON 31st DECEMBER, 1910 TO 1924.

Year.	South Africa.		United Kingdom.		Other British Possessions.		Other Countries.		Total.
	No.	%	No.	%	No.	%	No.	%	
1910	7,285	27·2	16,829	62·8	1,074	4·0	1,603	6·0	26,791
1911	10,307	32·9	18,322	58·4	1,076	3·4	1,652	5·3	31,357
1912	10,828	34·6	17,825	57·0	1,038	3·3	1,591	5·1	31,282
1913	10,741	36·2	16,570	55·8	906	3·0	1,493	5·0	29,710
*1914	—	—	—	—	—	—	—	—	—
1915	10,797	41·0	13,491	51·3	747	2·8	1,294	4·9	26,329
1916	12,649	45·6	12,937	46·6	778	2·8	1,383	5·0	27,747
1917	13,964	49·0	12,531	44·0	719	2·5	1,267	4·5	28,481
1918	14,426	50·2	12,389	43·1	679	2·4	1,228	4·3	28,722
1919	15,606	51·5	12,867	42·5	724	2·4	1,107	3·6	30,304
1920	14,255	50·8	12,116	43·2	661	2·4	1,023	3·6	28,055
1921	13,519	51·5	11,135	42·5	623	2·4	940	3·6	26,217
1922	10,740	48·6	10,077	45·6	552	2·5	730	3·3	22,099
1923	12,241	52·2	9,961	42·4	579	2·5	676	2·9	23,457
1924	13,528	55·0	9,770	39·7	559	2·3	739	3·0	24,596

* Particulars not available.

NOTE.—These figures do not include alluvial and diamond diggers, regarding whose nationality reliable information is not available; it is, however, well known that the large majority of these are South African born.

(ii) NATIONALITY OF EUROPEAN MINE EMPLOYEES IN SERVICE IN EACH PROVINCE ON 31st DECEMBER, 1924.

Classification.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	No.	%	No.	%	No.	%	No.	%	No.	%
South Africa	1,087	61·8	269	34·0	11,658	54·6	514	73·0	13,528	55·0
United Kingdom	621	35·3	505	63·7	8,485	39·8	159	22·6	9,770	39·7
Other British Possessions	29	1·6	11	1·4	508	2·4	11	1·6	559	2·3
Other Countries	22	1·3	7	0·9	690	3·2	20	2·8	739	3·0
TOTAL	1,759	100·0	792	100·0	21,341	100·0	704	100·0	24,596	100·0

7. **Accidents and Death-Rates on Mines.**—The subjoined table gives details of accidents on mines and death-rates from the year 1911. The death-rate for alluvial diamond diggings is omitted because the relative labour figures cannot be obtained accurately:—

ACCIDENTS AND DEATH-RATES ON MINES, FROM 1911.*

Year.	Total Number of Accidents.	Fatal Accidents.	Deaths during the Year.	Death-Rate per 1,000 Employees.			
				Metalliferous Mines.	Coal Mines.	Diamond Mines.	All Mines.
1911	2,897	882	1,061	3·89	1·96	2·24	3·51
1912	3,027	785	987	3·65	2·11	1·48	3·22
1913	3,200	793	992	0·57	2·88	2·24	3·31
1914	2,631	593	743	0·09	1·90	1·55	2·80
1915	2,552	608	776	3·05	2·05	0·40	2·93
1916	2,769	635	808	2·99	2·05	0·67	2·79
1917	2,631	545	664	2·53	2·16	1·10	2·37
1918	2,651	498	612	2·43	1·60	1·19	2·23
1919	2,945	516	607	2·36	1·83	1·88	2·25
1920	3,314	550	613	2·34	2·41	0·92	2·21
1921	4,947	434	525	2·14	1·65	1·06	2·03
1922	3,361	361	437	1·83	2·41	0·53	1·88
1923	3,913	504	637	2·44	2·70	1·29	2·42
1924	4,321	524	667	2·49	2·31	2·34	2·45

* Excluding alluvial diamond diggings.

8. **Stores Consumed by Mines.**—Particulars are given hereunder as to the value of stores consumed by mines in the Union from 1911 :—

VALUE OF STORES CONSUMED BY MINES FROM 1911.

Year.	Gold Mines.*		Diamond Mines.		Coal Mines.			Other Mineral Mines, Union.	All Mines, Union.
	Transvaal.	Union.	Cape.	Union.	Natal.	Transvaal.	Union.		
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911.....	11,680	11,687	661	1,450	219	276	545	306	13,988
1912.....	10,274	10,277	672	1,466	205	267	523	307	12,573
1913.....	10,607	10,611	815	1,645	252	331	643	396	13,295
1914.....	10,243	10,246	534	969	241	343	643	292	12,150
1915.....	10,902	10,906	122	139	225	333	618	343	12,006
1916.....	12,318	12,321	232	360	318	417	799	448	13,928
1917.....	12,704	12,705	422	689	413	512	996	453	14,843
1918.....	12,983	12,984	449	747	494	512	1,084	362	15,177
1919.....	13,196	13,197	638	1,058	610	603	1,302	333	15,890
1920.....	14,363	14,364	848	1,483	658	842	1,597	399	17,843
1921.....	14,440	14,440	719	917	750	1,001	1,854	348	17,559
1922.....	11,126	11,126	322	449	618	495	1,181	244	13,000
1923.....	13,425	13,425	397	723	658	481	1,211	336	15,695
1924.....	13,778	13,778	375	747	685	463	1,222	350	16,097

* And allied concerns.

9. **Capital Issued by Mines.**—The capital issued by registered mining companies (i) in the Union during a period of years and (ii) in each Province on the 31st December, 1924 is shown in the following tables :—

(i) **CAPITAL ISSUED BY MINES EXISTING AT 31st DECEMBER, 1911, AND SUCCESSIVE YEARS.**

Year.	Gold Mines.		Diamond Mines.	Coal Mines.			Other Mineral Mines.	Total.
	Witwatersrand.	Other.		Natal.	Transvaal.	Other Provinces.		
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911...	62,325	11,530	8,619	2,577	3,801	1,356	2,988	93,196
1912...	60,788	10,260	9,032	2,487	3,896	1,350	3,022	90,835
1913...	59,798	8,407	8,504	2,336	4,034	1,346	2,895	87,320
1914...	58,975	7,258	8,235	2,596	4,196	1,352	2,931	85,543
1915...	57,841	6,724	7,603	2,664	3,488	1,355	3,027	82,702
1916...	57,861	6,348	7,655	2,653	3,386	1,351	3,080	82,334
1917...	57,312	7,059	7,675	2,713	2,979	1,107	3,215	82,060
1918...	57,383	6,469	7,666	2,991	3,184	1,103	2,939	81,735
1919...	58,648	7,344	8,061	3,090	3,547	1,163	3,237	85,090
1920...	58,518	7,269	8,826	3,338	4,247	1,346	4,556	88,100
1921...	58,958	5,829	8,508	3,781	4,884	1,366	5,156	88,482
1922...	54,025	5,752	7,861	3,955	4,887	1,367	4,789	82,636
1923...	52,815	5,466	8,050	4,033	4,890	1,543	3,850	80,647
1924...	46,673	5,013	8,051	4,061	4,687	1,510	3,264	73,259

(ii) **CAPITAL ISSUED BY MINES EXISTING AT 31st DECEMBER, 1924.**

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
Gold Mines.....	5,000	2,593	51,603,094	75,124	51,685,811
Diamond Mines.....	5,992,155	—	200,960	1,857,623	8,050,738
Coal Mines.....	23,500	4,061,237	4,687,368	1,486,425	10,258,530
Other Mines.....	904,750	154,976	2,204,018	—	3,263,744
TOTAL.....£	6,925,405	4,218,806	58,695,440	3,419,172	73,258,823

NOTE.—Issued capital of coal mines in the Orange Free State and Natal Provinces includes the total capital of one concern in each of these Provinces engaged in other activities in addition to coal mining.

10. **Mine Dividends Declared.**—The dividends declared by mining companies in the Union during a series of years and in each Province during 1924 are shown in the following tables :—

(i) **MINE DIVIDENDS DECLARED FROM 1911.**

Year.	Gold Mines.		Diamond Mines.	Coal Mines.			Other Mineral Mines.	Total.
	Witwatersrand.	Other.		Natal.	Transvaal.	Other Provinces.*		
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911.....	7,763	303	2,681	51	237	12	234	11,281
1912.....	7,971	331	3,019	72	303	7	224	11,927
1913.....	8,205	391	3,443	83	265	6	229	12,622
1914.....	8,077	334	1,155	92	301	8	99	10,066
1915.....	7,524	210	—	45	350	3	66	8,198
1916.....	7,102	181	2,242	94	363	3	146	10,131
1917.....	6,559	167	3,022	134	223	3	181	10,289
1918.....	5,205	137	2,682	161	228	5	154	8,572
1919.....	6,007	95	4,659	140	249	—	19	11,169
1920.....	8,276	199	3,918	194	305	37	82	13,011
1921.....	7,164	96	500	275	383	42	9	8,469
1922.....	5,628	68	806	162	214	24	17	6,919
1923.....	8,460	78	2,065	162	249	24	24	11,062
1924.....	9,558	135	2,342	229	358	58	70	12,750

* From 1912 dividends shown were declared in Orange Free State; none in Cape.

(ii) **MINE DIVIDENDS, 1924.**

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union
	£	£	£	£	£
Gold Mines.....	—	—	9,692,972	—	9,692,972
Diamond Mines.....	1,870,947	—	220,000	250,992	2,341,939
Coal Mines.....	—	228,547	357,933	57,955	644,435
Other Mines.....	13,318	—	57,184	—	70,502
TOTAL.....£	1,884,265	228,547	10,328,089	308,947	12,749,848

§ 3. Gold.*

1. **Bibliography.**—A bibliography of the principal publications recently issued dealing with the mineral resources of the country will be found at the end of this chapter. A comprehensive bibliography of publications on mineralogical subjects was included in *Official Year Book* No. 7 and previous issues, but has had to be omitted owing to demands for space.

2. **Gold and Diamonds.**—To the world at large South Africa's importance as a mineral producer is due to its being the principal source of diamonds and the most important producer of gold. The economic place of mining, therefore, in the history of South Africa is a large one, for the discovery of minerals has not only had an important effect upon the prosperity of the country itself, but has materially influenced the trade of the whole world.

3. **Historical.**—Though there is evidence that gold was worked by the ancients to a considerable extent in the northern portion of South Africa, there is little to show that there were early workings in any portion of the Union of South Africa. Going back to ancient history, southern Africa in former days was intimately connected with mining, and, all through the old records, mention is made of gold exports that did so much to

* This section (paragraphs 1 to 12) is a summary of articles by Mr. U. P. Swinburne, A.R.S.M., F.G.S., M.I.M.M., M.I.M.E., which appeared in previous issues of this *Year Book*.

enrich the eastern and north-eastern coast trade. The golden stories told by the old chroniclers were no doubt exaggerated, but they stimulated pioneering enterprise and caused numerous expeditions to be formed for penetrating the coast lands and getting into the rich gold-bearing interior of Monomatapa, Sofala, and other old African provinces. In former days the Portuguese were responsible for most of the exploration of the gold-bearing areas. Only the northern and eastern territories were exploited, and no gold had ever been obtained from the phenomenally rich Witwatersrand goldfield. Vague reports were, however, current regarding the existence of gold in the Transvaal for very many years before outputs were reported. The following are some of the cardinal dates in connexion with gold mining in South Africa :—

1868. Carl Mauch mentioned the existence of gold near the Olifants River.
1870. Gold found in the Murchison Range.
1873. Gold found in the Lydenburg District at Pilgrims Rest and extensive alluvial gold washing continued for many years thereafter.
1882. De Kaap goldfields started.
1884. The brothers Struben commenced quartz mining on the farm *Weltevreden* on the Witwatersrand and started a five-stamp battery.
1885. The Sheba Mine discovered, and Barberton founded.
1885. The first gold from the banket or conglomerate beds of the Witwatersrand panned.
1886. Johannesburg founded.
1887. The first stamp mill started working banket.
1887. Coal discovered at Boksburg.
1889. Formation of Chamber of Mines.
1890. First cyanide test works and start of the Robinson cyanide works.
1891. Chlorination works at the Robinson Mine.
1892. Extensive deep level companies formed.
1892. Opening of railway to Johannesburg via Orange Free State.
1893. Rand Victoria Borehole—Reef found, depth 2,343 feet.
1895. Bezuidenhoutville Borehole—Reef, 3,127 feet.
1905. Introduction of tube mills.
1909. *Sandfilling commenced at the Robinson Mine.
1911. Six hundred stamp mill erected at Randfontein.
1912. Successful operations on the Far East Rand attracted general attention.
1921. Deepest workings Turf Shaft, Village Deep, 6,110 feet.
1922. All-sliming process introduced.
1923. Amalgamating tables largely replaced by blanketing on the Witwatersrand.
1923. Osmiridium first won in considerable quantity on the Witwatersrand.
1924. World's deepest workings on Village Deep—6,662 feet on 31st December, 1924.

4. **Witwatersrand Gold Mining.**—The Witwatersrand goldfield is located on an elevated plateau, nearly 6,000 feet above the sea. The Witwatersrand (or Ridge of White Waters) projects somewhat above the plateau, and the outcrop of the conglomerate reefs can thus in a measure be said to be the dividing watershed between the Atlantic and Indian Oceans, the tributaries of the Vaal River draining into the Atlantic, and those of the Limpopo or Crocodile River into the Indian Ocean.

The conglomerate beds of the Witwatersrand are composed of quartz pebbles bound together by a siliceous cement containing iron pyrites. The name "banket," which has been given to the conglomerate from its general resemblance to an almond sweetmeat with this Dutch name, refers specially to the ore taken from the oxidized zone, which in the early history of the fields was called "free milling" and was found to extend to only a limited depth. The bankets occur in a series of quartzites and shales, which are known as the Witwatersrand beds, and which constitute a formation succeeding in age the archaic schists of Barberton.

The gold contained in the conglomerate is not often visible to the naked eye, occurring almost invariably in the matrix, its existence in the pebbles having been recognized only in rare instances. There are several series of these conglomerate beds in planes more or less parallel to each other. The most common designation of them, starting from the lowest geological horizon, is as follows :—Main Reef series, Bird Reef, Kimberley series, Elsburg and Black Reefs. Gold is found as an essential constituent in all the banket beds included in the foregoing list, but thus far the Main Reef series only has justified extensive exploitation, and even here only within certain limits.

Improved mechanical methods and labour organization have gradually brought all the chief gold mines to a similar basis as regards both mining and metallurgy and a very satisfactory extraction is obtained throughout the whole banket series of reefs. The success in working these large bodies of comparatively low grade ore may be assigned to the following causes :—(*a*) The adaptability of the cyanide process to the Witwatersrand ores;

* Sandfilling on the Witwatersrand is the transfer of the waste sand dumps underground through pipes and boreholes and filling up the old stopes, forming a permanent support to the excavations.

(*b*) the uniformity and character of the gold-bearing deposit; (*c*) cheap unskilled labour; (*d*) the proximity of coal deposits; (*e*) absence of heavy pumping charges; (*f*) good water supply.

Actual mining on the main gold-bearing area is greatly assisted by a very strong roof which supports all excavations made within reason and which requires a minimum of timbering and other supports in the shallower workings. This excellent roof or hanging-wall has its limits, however, and the enormous amount of ore extracted during the past thirty years is beginning to have effect over large worked-out areas causing large falls, earth tremors, and subsidences, and necessitating extensive sandfilling and other precautions to save existing workings and communication ways.

5. **Gold Production.**—(i) *Transvaal.*—The following table shows the progressive reef gold production of the Transvaal, which in 1924 contributed approximately 51·54 per cent. of the world's gold output:—

QUANTITY AND VALUE OF GOLD PRODUCED IN TRANSVAAL FROM 1884 TO 1924.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Fine Oz.	£		Fine Oz.	£
1884.....	2,376	10,096	1908.....	7,056,266	29,973,115
1885.....	1,414	6,010	1909.....	7,295,108	30,987,650
1886.....	8,171	34,710	1910.....	7,527,108	31,973,123
1887.....	39,880	169,401	1911.....	8,249,461	35,041,485
1888.....	227,749	967,416	1912.....	9,107,512	38,686,250
1889.....	350,909	1,490,568	1913.....	8,798,336	37,372,949
1890.....	440,152	1,869,645	1914.....	8,394,322	35,656,814
1891.....	688,439	2,924,305	1915.....	9,093,902	38,628,437
1892.....	1,069,058	4,541,071	1916.....	9,296,618	39,489,522
1893.....	1,200,218	5,480,498	1917.....	9,018,084	38,306,381
1894.....	1,805,000	7,667,152	1918.....	8,418,292	35,758,636
1895.....	2,017,443	8,569,555	1919.....	8,331,294	†35,389,091
1896.....	2,025,510	8,603,821	1920.....	8,158,226	†34,635,947
1897.....	2,743,518	11,653,725	1921.....	8,128,681	†34,528,443
1898.....	3,823,367	16,240,630	1922.....	7,009,767	†29,775,598
*1899.....	3,637,713	15,452,025	1923.....	9,148,771	†38,861,511
*1900.....	348,761	1,481,442	1924.....	9,574,918	†40,671,667
*1901.....	258,307	1,097,219			
*1902.....	1,717,944	7,297,351			
1903.....	2,971,416	12,621,781	TOTAL—		
1904.....	3,770,963	16,018,026	1884–1924	188,906,624	802,788,667
1905.....	4,908,087	20,848,273			
1906.....	5,792,823	24,606,336			
1907.....	6,450,740	27,400,992			

* War period. † Not including premium (*vide* paragraph 16 below).

In the early days of modern mining, accurate statistics were seldom available, but the total production of gold from the Union of South Africa from 1868, when gold was first discovered, to the end of 1924 amounts approximately to £836,000,000 including the premium, and the gold was practically all won in the Transvaal.

(ii) *World Production.*—Particulars of the world production of gold from 1913 are given in the following table:—

WORLD PRODUCTION OF GOLD, 1913 TO 1923.

ear.	Union of South Africa.		United States.	Canada.	Australia.	Mexico.	Southern Rhodesia.	British India.	Other Countries.	Total.
	Production.	Percentage of World Total.								
	Fine oz.	%	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
3..	8,795,202	37·95	4,299,783	802,973	2,207,444	829,783	689,954	539,275	5,013,476	23,177,890
4..	8,379,886	38·21	4,572,976	773,178	2,055,204	277,623	854,480	550,201	4,465,374	21,928,922
5..	9,096,180	39·81	4,887,602	918,056	1,947,001	236,570	915,029	556,596	4,293,046	22,850,080
6..	9,296,964	42·31	4,479,056	930,492	1,665,883	377,692	930,356	541,077	3,753,582	21,975,108
7..	9,018,389	43·72	4,051,440	738,831	1,456,169	756,878	834,231	520,362	3,249,580	20,625,880
8..	8,418,379	45·56	3,320,784	699,681	1,273,188	813,799	631,358	485,236	2,832,041	18,474,466
9..	8,331,651	47·08	2,829,395	766,764	1,068,102	756,885	593,222	461,171	2,887,847	17,695,037
0..	8,158,455	50·35	2,395,017	766,912	943,654	735,078	552,498	444,532	2,208,883	16,205,029
1..	8,128,710	50·89	2,422,006	926,329	758,005	684,634	585,525	432,723	2,037,030	15,974,962
2..	7,009,858	45·39	2,363,075	1,263,364	756,979	748,291	652,791	438,015	2,207,870	15,440,243
3 .	9,149,073	51·54	2,426,495	1,223,601	721,934	781,663	649,082	383,698	2,415,219	17,750,765
AL: 3–23	93,782,747	44·22	38,047,629	9,810,181	14,853,563	6,998,896	7,888,526	5,352,886	35,363,948	212,098,382

6. **Methods of Mining.**—The gold-bearing beds of the Witwatersrand are locally known as reefs. They are beds of conglomerate occurring in a pre-Silurian sedimentary formation and strike east and west and dip south. Speaking generally, the reefs are steep at the outcrop, flatten in depth, and again steepen somewhat in the deeper workings. In the early days inclined shafts followed the reefs from the outcrop; as depths increased either compound shafts, in which vertical shafts connected directly with underground inclines, or auxiliary underground incline shafts, provided with their own underground winding engines, were adopted. Recently many deep vertical shafts have been put down, and in some cases greater depth is being reached by auxiliary underground vertical shafts. Practically all development is done by air-driven machines, and though a good deal of stoping is still done by hand, machines—especially those of the small "Jackhammer" type—are generally used in stopes. Some mines obtain their compressed air by purchase from a large central power-station, while many use electric power developed in four central stations for hoisting and other purposes. With the increase in area from which reef has been removed and the greater depth of working the problem of securing safety from falls of rock has become more difficult and systematic building of packs, either of stone alone or stone and timber to support the hanging-wall, has had to be undertaken.

To prevent miners' phthisis, extraordinary measures by installation and use of water services for dust-allaying have for some years been adopted, and recently increased attention has been given to the provision and distribution of ventilation as a means of diluting and removing the dust inevitably formed despite all precautions.

A joint Committee appointed by the Government Mining Engineer and the President of the Transvaal Chamber of Mines to inquire into the questions relating to dust prevention, and ventilation in mine development, published its findings in an interim and final report appearing in the *Union Gazettes* of the 22nd of February, 1924, and the 15th of January, 1926. A practical method of dealing, by ventilation, with the dust produced by machine drills in development drives, was suggested, and the various precautions to be adopted to render its application effective were prescribed. A series of experiments in connexion with the ventilation of shafts, winzes, and raises was conducted and several conclusions were arrived at. Detailed recommendations were made as to the methods to be adopted in dealing with dust by ventilation under differing mine air conditions.

Previous issues of this *Year Book* (Nos. 1 to 4) contained fuller particulars as to methods of mining on the Witwatersrand.

7. **Metallurgy of Gold Production.**—The process of extracting the metal from the ore raised from the mines may be summarized as follows. In the first place, the valueless rock is sorted or picked out on picking belts or tables. The gold-bearing rock is then reduced to smaller size in jaw or gyratory stonebreakers, crushed finer in stamp mills and still finer in tube mills. Till recently the coarser free gold was recovered from the finely-crushed ore by the usual process of amalgamation on plates. In that method the ore from the stamp mills or the tube mills was carried in a stream of water over mercury-coated copper plates where the gold was caught as amalgam by the mercury. The amalgam scraped from the plates was "retorted," the mercury being distilled off and the gold "sponge" remaining in the retort subsequently melted down into bars. During 1923, however, amalgamation on plates was almost completely abandoned. Instead of using mercury on the plates, those are now covered by strips of corduroy cloth, the pile on which catches the particles of gold and other heavy minerals. The strips of corduroy are removed at intervals and washed in tanks of water from which the "blanket concentrates" or "black sands" are subsequently taken and passed over a Wilfley or other concentrating table. The richer and heavier portion separated on that table goes to an amalgamation barrel, while the poorer portion is returned to the tube mills In the amalgamation barrel the concentrate is ground by iron balls with mercury, which takes up the gold and is then "retorted" as though it were amalgam from plates. It may be mentioned incidentally that the concentrate from which the gold has been removed is again treated on a concentrating table and the osmiridium, which occurs in it in varying proportion at different mines, is separated and recovered.

The gold which escapes being caught by the corduroy is dealt with by the cyanide process. The coarser sand in the stream of pulp is separated from the finer "slime" in hydraulic classifiers. The gold is extracted from the sand by leaching in vats with cyanide solution, while the slime is agitated with cyanide solution which is separated again from the slime by decantation or filtering. The gold is obtained from both the sand and slime solutions by passing them over zinc shavings, or occasionally by mixing zinc dust with them, so that the gold will be deposited on the zinc, the resulting "gold slime" being then treated with sulphuric acid, filter pressed, calcined, and smelted.

The methods above outlined are modified at some mines. There is at present a strong tendency to resort to slime treatment only and to use tube mills rather than gravity stamps for pulverizing the ore. For instance, in new plants at New State Areas and West Springs Mines and in a later addition at Springs Mines, stamps are not used, but the ore from rock breakers and crushers passes to tube mills, where it is ground in cyanide solution, being

all eventually reduced to "slime." Zinc dust is used in each case to recover the gold from solution.

It is claimed that substitution of corduroy for amalgamated plates reduces the risk of gold thefts, and lessens the amount of gold "locked up" in the plant, as plates always retain much gold, while the percentage extraction of gold obtained is as good as with plates.

Similarly for "all-sliming," Merrill zinc dust precipitation and absence of gravity stamps it is claimed that the cost of plant, the cost of working, and loss of gold through theft, and the amount of gold "locked up" in the plant are all less, and that the extraction of gold is somewhat higher than with the older method.

The metallurgy of gold production was dealt with in fuller detail in previous issues of this *Year Book* (Nos. 1 to 4).

8. **Barberton Goldfield.**—The Barberton goldfield may be said to date from 1885 when the phenomenally rich Sheba Mine was discovered. Speaking generally, the field consists of a number of quartz mining propositions situated in an ancient schist formation and intersected by numerous dykes and intrusions of trap rock. The pay ore runs in chutes and in lenticular segregations often extremely rich at surface but becoming poorer in depth, and frequently cut off by igneous intrusions or dying away in the country rock. Some of the medium-grade mines, however, have maintained their values to the greatest depth hitherto attained by them. For a few years Barberton and the surrounding district produced a considerable amount of gold; but in late years it has taken a relatively small place in the gold production of the Union, the quartz mines being worked on a comparatively small scale by tributors, private owners, and small capitalists. In the Kaapschehoop and Jamestown districts a small amount of alluvial gold is still found from time to time, but at the present time the alluvial digger has ceased to exist in these districts.

A full account of this district will be found in Geological Survey Memoir No. 9: "The Geology of the Barberton Gold Mining District," by A. L. Hall.

9. **Pietersburg and Murchison Range.**—The quartz mines in the Pietersburg district were worked as early as 1870; and there are indications of small ancient workings on some of the gold-bearing reefs. The ore bodies here proved patchy and irregular, and the climate in the lower-lying parts of the area is very malarial in summer. An output of gold has been maintained by these outlying districts for many years past, but all the enterprises, where any considerable capital was employed, were failures, and mining, as in the Barberton district, is almost entirely in the hands of individuals working their own claims or in the hands of small syndicates. The bad climate and lack of transport facilities up to a recent date have prevented the Murchison Range and neighbouring goldfields from attaining a successful development in the hands of individuals and small parties of working miners.

For a full account of this district, *vide* Geological Survey Memoir No. 6: "The Geology of the Murchison Range and District," by A. L. Hall.

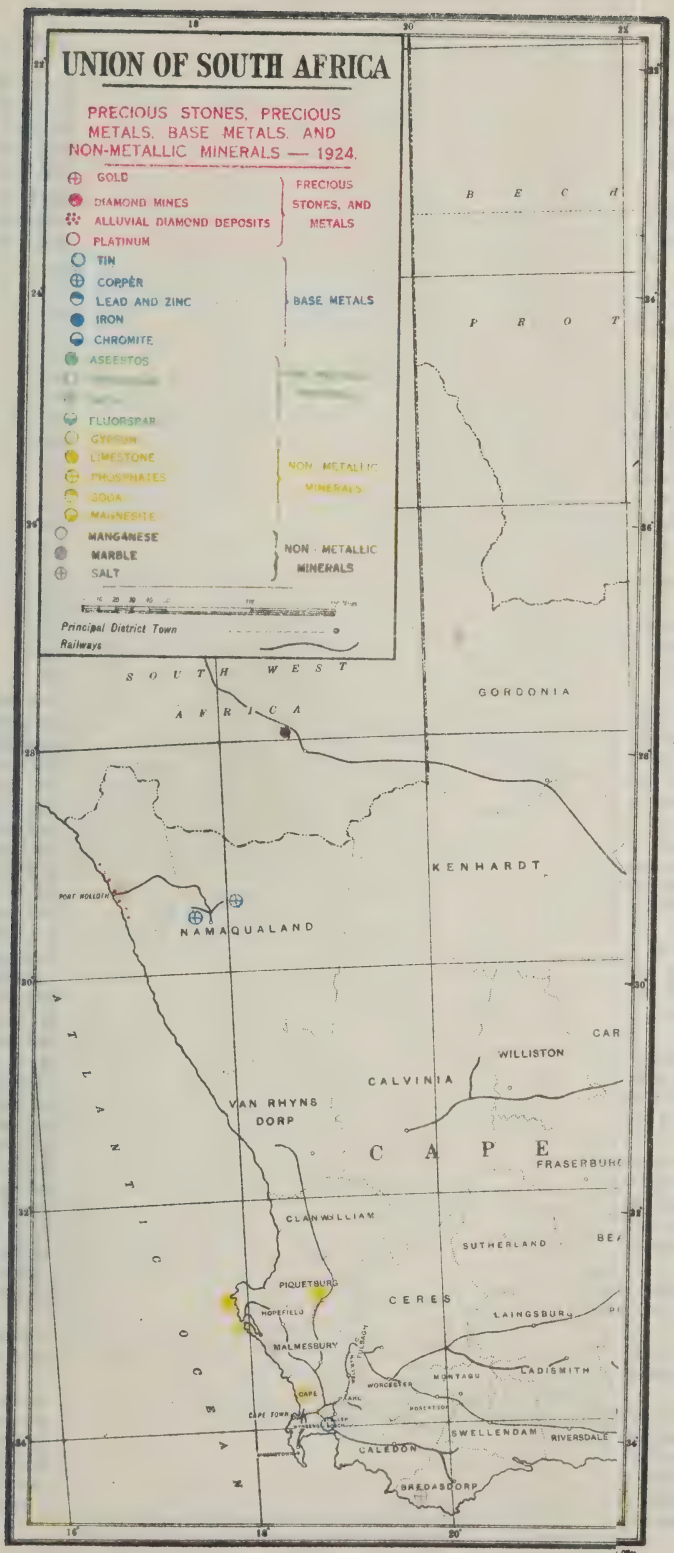
10. **Lydenburg and Pilgrims Rest.**—This is the most beautiful part of the Transvaal and has every facility for mining, including water for power and a healthy climate. Forty-five years ago Pilgrims Rest was an important alluvial goldfield, and it is the only part of South Africa that ever gave good results as an alluvial digging. Later the alluvial gold became worked out, and prospecting commenced on the mineralized bedded veins in the dolomites, quartzites, and shales found in this area. In some localities the exploitation of lodes in schist similar to that of the Barberton District has also taken place.

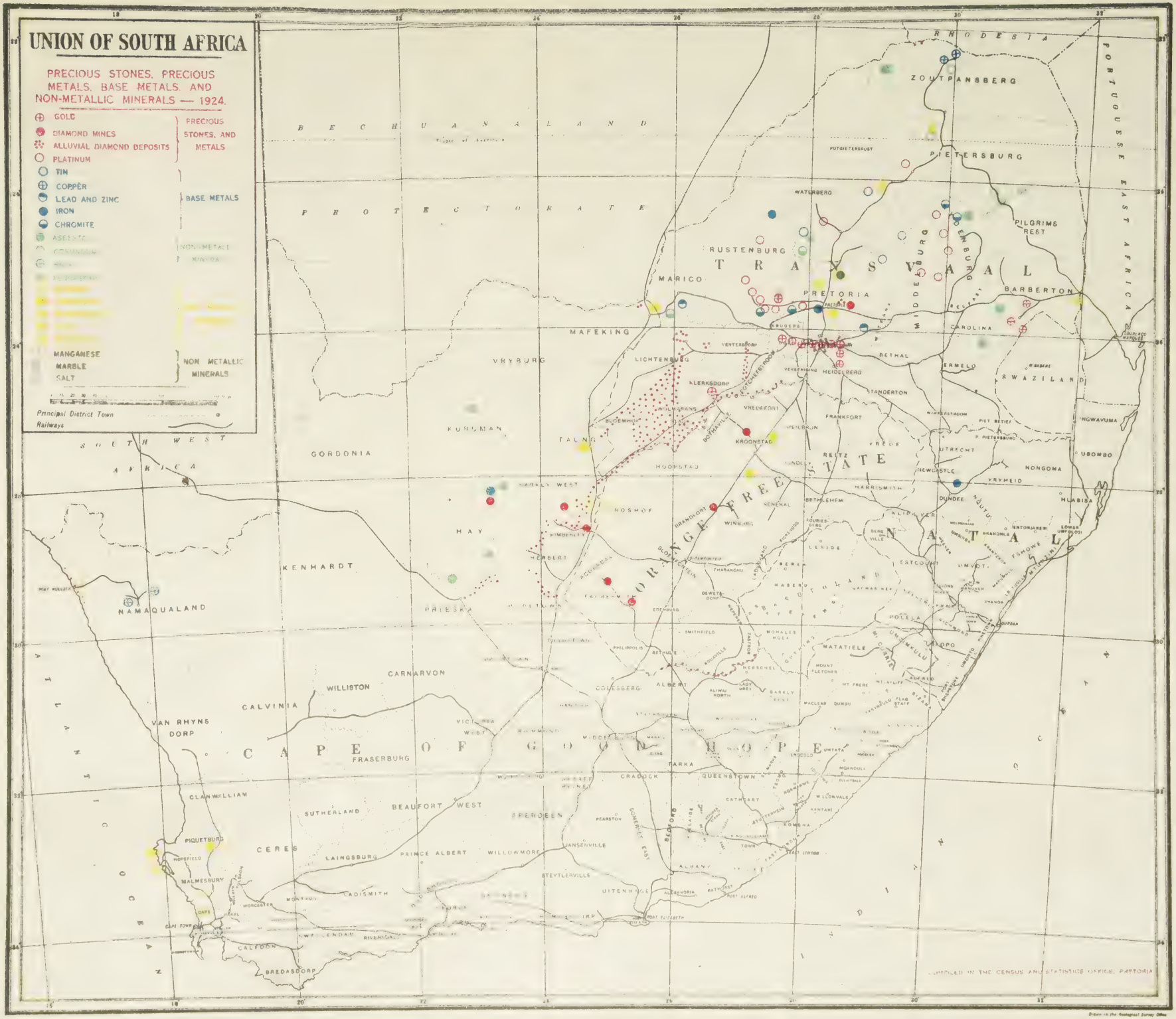
From a fairly early date this goldfield attracted capitalists and the more promising areas soon passed out of private hands into the possession of large companies which are still working the auriferous beds. From time to time small finds are made in areas outside the large concessions and company-owned ground, but the bulk of the present day output is obtained from the large companies.

A full account of these fields will be found in Geological Survey Memoir No. 5: "The Geology of the Pilgrims Rest Gold Mining District," by A. L. Hall.

11. **Alluvial Gold.**—At the present date it cannot be said that there are any important alluvial gold diggings in South Africa, although a few diggers still can be found prospecting the alluvial deposits in the Pietersburg, Barberton, and Pilgrims Rest districts, for in 1920 the output of alluvial gold was only 1,139 fine ounces from all Transvaal Districts. In 1873, and for some years following, a considerable quantity of so-called alluvial gold was won at Pilgrims Rest and Barberton districts until the deposits were worked out and the diggers turned their attention to the gold-bearing reefs and beds. At the Duivelskantoor the sandstones of the Black Reef series contain alluvial deposits of small extent and numerous nuggets of gold have been found in this locality. In 1898 a fifty-two-ounce nugget was found on the main coach road near the Duivelskantoor, and this nugget was shown at the Paris Exhibition in 1900. The gold from these fields has apparently been derived from the dolomites and other formerly overlying rocks which have now disappeared through erosion.

Alluvial gold recovered in the Transvaal from the date of the British occupation up to the 31st December, 1924, amounts to 34,064·543 ounces of fine gold.


UNION OF SOUTH AFRICA
PRECIOUS STONES, PRECIOUS METALS, BASE METALS, AND NON-METALLIC MINERALS — 1924.
GOLD
DIAMOND MINES
ALLUVIAL DIAMOND DEPOSITS
PLATINUM
PRECIOUS STONES, AND METALS
TIN
COPPER
LEAD AND ZINC
IRON
CHROMITE
ASBESTOS
BASE METALS
FLUORSPAR
GYPSUM
LIMESTONE
PHOSPHATES
SODA
MAGNESITE
NON-METALLIC MINERALS
MANGANESE
MARBLE
SALT
NON-METALLIC MINERALS
Principal District Town
Railways
B E C H
P R O T
S O U T H W E S T
A F R I C A
GORDONIA
KENHARDT
PORT NOLLOTH
NAMAQUALAND
WILLISTON
CALVINIA
VAN RHYNS DORP
C A P E
FRASERBURG
CLANWILLIAM
SUTHERLAND
PIQUETBURG
HOPEFIELD
CERES
LAINGSBURG
MALMESBURY
LADISMITH
WORCESTER
MONTAGU
CAPE TOWN
SWELLENDAM
RIVERSDALE
CALEDON
BREDASDORP



Orders to the Geological Survey Office

Photolithographed at the Government Printing Works, Pretoria

In the Cape Province, from 1910 to the 31st December, 1924, 294·197 ounces of fine gold were obtained. In Natal, from 1910 to 31st December, 1924, 489·460 ounces of fine gold were obtained.

The total alluvial production of the Union to the end of 1924 was 34,848·200 ounces of fine gold.

12. **Future Production.**—The total amount of gold to be ultimately produced by the Witwatersrand has been at various times the subject of investigation and speculation, and publicity has been given to the following estimates of future production :—

(1) £325,000,000 by Mr. Hamilton Smith in 1893, from 11½ miles of the Central Witwatersrand to a depth of from 3,000 to 3,500 feet.
(2) £349,000,000 by Bergrath Schweisser in 1894, from 11½ miles of the Central Witwatersrand to a depth of 3,900 feet.
(3) £700,000,000 by Messrs. Hatch and Chalmers in 1895, to a depth of from 3,500 to 4,000 feet.
(4) £800,000,000 by Mr. John Hays Hammond in 1901, to a depth of 6,000 feet.
(5) £1,233,560,000 by Messrs. Leggett and Hatch, in 1902, to a depth of 6,000 feet excepting in the area east of Modderfontein where a depth of 4,000 feet was taken.
(6) The Transvaal Chamber of Mines in 1913 stated in evidence before the Economic Commission that from 42 of the 51 gold mines producing at that time there would be worked from a depth of 7,500 feet 550,000,000 tons of ore, which would yield in gold more than the cost of working, which would be £500,000,000 approximately.
(7) In 1914 the Transvaal Chamber of Mines repeated this statement to the Dominions Royal Commission.
(8) The Government Mining Engineer, in evidence before the Dominions Royal Commission in 1914, estimated the tonnage to be crushed from the mines producing at that time as 587,000,000 and from mines and areas not then producing as at least the same quantity.

The continuity of the Witwatersrand as a gold producer depends upon the practicability of mining at great depth and on the extension of the reef in the eastern area where great possibilities exist favourable to a large gold production. On account of the comparative great strength of the formation and the low rate of increase of temperature with depth, it should be possible to mine at greater depths than have been attained hitherto in any part of the world.

The limits of deep mining are governed by many causes and have been variously estimated at from 6,000 to 10,000 feet. It appears reasonably certain that, owing mainly to the low temperature gradient of 200 to 250 feet per degree Fahrenheit, mining can be carried on to a depth of at least 7,000 feet, where the grade of ore mined is sufficiently high to cover the high cost which must inevitably prevail at such a depth.

While unique in the extent of its resources the Witwatersrand must be looked upon as being on the average a low grade goldfield and, with only a few shillings per ton profit to work on, the question as to what companies can profitably continue to mine at great depths is inextricably bound up with the question of working costs, which is again largely dependent upon the supply and cost of labour.

The *Far Eastern Area*, referred to in the preceding paragraphs, has recently assumed a very important position in Witwatersrand mining, and it is from this district that a progressive output of gold may be looked for to take the place of the exhausted outcrop properties of the Central Rand and to counteract the diminishing output of a large group of mines that show a serious falling off in values at depth.

The *Far East Rand* contains the *Main Reef Series* over about 247 square miles, and for 203 square miles of this area the reef lies at a depth of less than 5,000 feet.

In addition to the properties at work in the developing and producing stage, the State owns a large number of undeveloped claims which are leased from time to time to companies capable of putting up the large sums of money necessary to bring these deep level mines to the producing stage.

The dip of the reef over almost all this eastern gold-bearing district is slight and there are portions of it of considerable extent in which the average dip is under seven degrees.

Mining and boring operations have shown that over almost the whole area only one reef has been or is likely to be worked and the average estimated stoping width is about 5 feet.

In most mines in this area there exist non-productive zones from which no ore is obtained, either because it has never been deposited or has been cut out through faulting or the intrusion of dykes or is so narrow in width or so low in value as to be unpayable. The percentage of non-productive zones varies from 15 to 80 per cent. in different mines on the basis of the existing relations between recovery and costs, and in estimating the possibilities of the ground still to be worked 60 per cent. of the area is assumed as non-productive.

While there are indications that the poorer ground lies in certain directions present day knowledge of the conditions does not permit any clear line of demarcation between payable and unpayable zones. The *Far East Rand* to-day contains most of the large dividend paying mines of the Witwatersrand.

The following statement from a recent report by the Government Mining Engineer affords some indication as to the probable extent of the decline in the gold mining industry on the Witwatersrand (including the Sub-Nigel) :—

The mines which crushed over 6,000 tons per annum during 1924 numbered 49 ; of these, 2 have already ceased operations and 4 have not yet had their lives determined for purposes of taxation. The official lives of the remaining 43 range from one to thirty years and average 7½ years. These official lives have been estimated upon a conservative basis and are likely to be exceeded, but if the estimates prove to be correct in five years' time 19 of these 43 mines will have ceased production, involving a decrease of 23 per cent. in the tonnage milled and of 17 per cent. in the amount of gold produced ; while in ten years' time 28 of these 43 mines will have ceased production, the resulting decrease as compared with 1924 in tonnage milled and in amount of production being 43 per cent. and 39 per cent. respectively. On the other hand, some of these mines have recently increased or are about to increase their production to an extent which will lessen the decrease in five years' time to 19 per cent. of the tonnage milled and 13 per cent. of production, and in ten years' time to 40 per cent. of tonnage milled and 35 per cent. of production.

The above forecasts take no account of unforeseen increases in the crushing capacity of existing mines, of new mines which may be opened up, or of the continuation of mining operations following on an exhaustive effort to extract the last possible remnants of ore prior to final closing down. It may be reasonably expected that these causes will operate to produce a smaller diminution of tonnage and production than is indicated. On the other hand, any substantial increase of costs whether due to taxation or to higher wages and supplies will tend to accentuate the decreases.

In the " Review of Economic Statistics," issued by the Harvard Economic Service, Mr. Joseph Kitchin estimated that the gold output of the Transvaal would fall to £29,000,000 in 1930, on the basis of an estimated production of £40,000,000 to £41,000,000 in 1924. He further forecasted that the total world production of gold would decline from £77,000,000 in 1924 to £74,000,000 in 1930. Allowance was made in this estimate for a possible variation of 5 per cent. in the actual figures.

13. **Mining Commissions.**—(i) *Report on the Development of the Mineral Resources of the Union.*—A Departmental Committee, consisting of Sir Robert Kotze, Government Mining Engineer (chairman), W. A. Caldecott, Esq., D.Sc., Department of Mines and Industries, and T. G. Trevor, Esq., A.R.S.M., Inspector of Mines, Pretoria, was appointed in March, 1924, to investigate and report upon the Mineral Resources of the Union. Owing to Mr. Trevor's absence from the Union his place was taken by Mr. A. L. Hall, M.A., Assistant Director of the Geological Survey.

The terms of reference were as follows :—

(*a*) The stimulation of mineral production in the Union.
(*b*) The existence of obstacles to the development and exploitation of the Union's mineral resources, with suggestions for the most practical way of removing such obstacles.
(*c*) The utilization of the Union's raw material products for the purpose of manufacture in South Africa.

The Committee's report is dated the 20th January, 1925, and was published in full in the *Journal of Industries* for the month of April, 1925. Its recommendations were :—

Reference (*a*)—

(i) An effective increase of the appropriation " district mining development."
(These are grants approved from time to time by Parliament for investigating the mineral possibilities of suitable areas and for allied aids to production. The appropriation for the year 1924–25 amounted to £4,000, which the committee considered quite inadequate.)
(ii) A more sympathetic policy in the matter of railway rates.
(iii) Financial relief in favour of known but undeveloped resources, by avoiding the taxation of capital devoted to supplies, equipment, and of working costs.
(iv) A bolder policy in regard to bounties, the cost in suitable cases to be met by a duty on competitive imports.
(The Committee considered that in *bona fide* instances a bounty on production would produce good results. The cost of bounties on the production of articles manufactured from South African mineral products could be met by a duty on competitive imports, which might be small at first but would gradually increase as local production expanded, until the bounty finally disappeared and the normal protective duty remained.)

(v) A comprehensive and sustained publicity campaign.

(The Committee emphasized the desirability of conducting a still better organized and more comprehensive and sustained effort to attract capital to the Union, and claimed that capital would be more readily attracted if the State gave the same practical support to the development of the country's mineral resources as it does to the agricultural industry.)

Reference (*b*)—

(vi) Amendments to the Gold Law to facilitate prospecting.
(vii) The introduction of a Reserved Minerals Bill in respect of alienated Crown lands.
(viii) The appointment of a Government agent in London to assist in the development of marketing facilities.
(ix) Provision of official grading certificates, where desirable.
(x) Taxation of the mineral industry on the basis of its net revenues only.
(xi) A progressive road policy.
(xii) Possible extension to the mineral industry of the Co-operative Societies Act, 1922.

Reference (*c*)—

(xiii) Preferential assistance; through investigation and, if justified, financial support of known but undeveloped resources.
(xiv) A more effective policy in the purchase of Government supplies.
(xv) Encouragement of oversea firms to establish local factories.

General reference—

(xvi) Provision of more effective means of inquiry and assistance through an extension of the economic functions of—
Geological Survey,
Government Mining Engineer's Branch,
Industries Division,
by the addition of staff and the general co-ordination and broadening of effort.
(xvii) Special efforts to develop the gold, coal, and iron industries, in view of their outstanding importance, actual and potential.

(ii) *Report of the Mining Regulations Commission.*—A Commission, consisting of Advocate W. Pittman, K.C. (chairman), J. H. Munnik, Esq., M.L.A., R. B. Waterston, Esq., M.L.A., and J. J. Wessels, Esq., appointed in November, 1924, to investigate—

(*a*) the effect on the accident rate and on the safety and health conditions in the Witwatersrand gold mines, in the coal mines in the Transvaal and the Natal Provinces, and in the copper mines worked by the Messina (Transvaal) Development Company, Ltd., of the present Mining Regulations dealing with the supervision of underground working-places, and the extent to which the present working of these regulations affects the good relations between employers and employees, and
(*b*) the present position on these mines in regard to the respective spheres of work of white and coloured persons,

issued its report on the 8th April, 1925 (U.G. No. 36—'25). The following résumé gives most of the outstanding findings of the Commission:—

(a) *The Regulations in Operation and their Effect upon Safety and Health Conditions.*—The Commissioners were of opinion that the regulations requiring the examination and making safe of working-places before work was commenced were not sufficiently stringent. The miner charged with the duty was seriously handicapped by being given more work than he could adequately perform in the time allowed him. A restriction of the number of working-places the miner was required to supervise was recommended, and the vagueness of many of the regulations which were found to admit of divergent interpretation was commented upon. Habitual or frequent contravention of regulations intended to safeguard the health and safety of workers was common, and attention was drawn to certain copper mines in the Transvaal and collieries in Natal where the charging of blasting holes was to a large extent performed by uncertificated natives. The causes contributing to the non-observance of regulations in the gold mines are considered by the Commission to be due chiefly to the tendency to enlarge the European miners' sphere of responsibility under the impulse of securing a maximum of output at a minimum of working costs. The growing efficiency of the native boss-boy, to whom the natives of the gang are disposed to look for supervision, has been instrumental in extending this responsibility, while reducing the European miner's control in many cases to a mere shadow. Another factor operating in the same direction is the paucity of the number of inspectors, and the resulting inadequacy of mine inspection. The character of the working relations between the Senior Inspectors, the Government Mining Engineer's Department, and the Mine Managements is vigorously

criticized, it being held that the atmosphere created by familiar association militates against the enforcement of managerial obedience to the regulations, and cases of exemption from regulations where no legal power to grant exemption existed, were observed. The very vagueness of some of the important regulations was held to be a further predisposing cause of contravention and imposed difficulties in obtaining legal convictions. Another factor mentioned as largely instrumental in producing breaches of the regulations was the "Contract System," which by reason of the incentive it gives the worker to accomplish a maximum amount of work during his shift tends to engender a disregard for considerations of health and safety.

(b) *The Ratio between European and Coloured or Native Employees.*—An examination of the figures over a series of years indicated a general tendency to increase the ratio between European and native employees in favour of the latter. This movement, attributed by the Chamber of Mines to the discharge of inefficient and redundant white workers following upon the reorganization effected after the strike of 1922, did not commend itself to the Commissioners, who, as a result of investigation and evidence taken on the subject, arrived at the conclusion that the cause was purely economic. By the introduction of machines, types of skilled labour at one time the exclusive prerogative of Europeans had passed into the category of semi-skilled, and were now almost exclusively performed by natives who had acquired considerable facility in the performance of the work. This insidious, tendency was continuing and was likely to be extended in other directions as the native acquired increased proficiency, and there existed grave temptations inciting managements to pursue this particular line of policy. For example (*a*) the *Living-in System*, which enabled the employers to feed and house the native at a minimum of cost, while subjecting him to a degree of discipline and control not possible in the case of white workers, (*b*) the *Indenture System*, which binds the native more closely to his employer and for more definite periods, and (*c*) *Compensation payable in respect of injuries and phthisis*, which is considerably less for natives than for Europeans.

A disquieting feature of the competition of natives in semi-skilled work is the gradual closing of these avenues to the white worker as a means of apprenticeship and ultimate entry into the skilled occupations. The South African-born man enters the mines with no previous knowledge of mining operations; this he acquires by a succession of experiences in the semi-skilled occupations, qualifying as best he can until he has learned enough to enable him to obtain a blasting certificate and thus become a fully qualified miner. The regulations framed under the Mines and Works Act of 1911 restricted certain employments to white employees, but in 1923 the validity of these regulations was tested in the Transvaal Division of the Supreme Court, which pronounced them *ultra vires*. No regulation can thus be framed restricting any particular occupation to white workers, and the Commissioners are of opinion from observations, despite assurances to the contrary, that in the absence of legislative prohibition the policy of replacing European by coloured workers will continue wherever economic conditions not glaringly opposed to health and safety appear to call for such substitution.

The Commissioners recommend that any legislation embarked upon should secure to mine workers generally an adequate measure of protection against accident and disease in the exercise of their dangerous and unhealthy calling, and rescue the European miner from the economic fetters which at present render him the easy victim of advancing native competition. There is a variety of occupations on the mines which the native of to-day is unable to fill without the gravest risk of danger to his fellow-workers. These for the present at least must be strictly confined to Europeans. To secure this result the *colour-bar* regulations should be re-enacted, the Mines and Works Act of 1911 being amended to this end.*

(iii) *Report by Cinderella-East Rand Proprietary Mines Commission.*—The Report of this Commission, consisting of W. S. Webber, Esq., M.L.A. (chairman), Sir R. N. Kotzé, Kt., W. E. Hudson, Esq., with G. H. Trevelyan, Esq., as secretary, appointed under the following terms of reference:—

(*a*) to inquire whether any equitable terms of amalgamation or other working arrangement between the Cinderella Consolidated Mines, Ltd., and the East Rand Proprietary Mines, Ltd., can be devised with the object of ensuring the opening up and working of the Cinderella Company's property in whole or in part, and the continuation of operations by the East Rand Proprietary Mines;

(*b*) to negotiate with the respective parties for the acceptance by them of such terms or working arrangement;

(*c*) to report to the Government the results of such inquiry and negotiations, and to make any further recommendations with reference to the matter which the Commission may consider desirable in order to achieve the object stated in (*a*),

* Enabling legislation is contained in Act No. 25 of 1926.

was issued on the 3rd December, 1925 (U.G. 18—'26). The Commissioners reviewed briefly the history of the two mining properties, and reported that after prolonged negotiations the parties had arrived at an agreement for amalgamation, which the Boards of Directors purposed submitting to their respective shareholders for confirmation. The Commissioners recommended the following conditions to the consideration of the Government :—

(*a*) That the Government should consent to the amalgamation.

*(*b*) That the Government guarantee the £250,000 second debentures of the East Rand Proprietary Mines, both as regards principal and interest.

(*c*) That as a condition of the amalgamation the Government agree to release both companies from liability in respect of undermining rights already acquired.

14. **Capital in Gold Mining Industry.**—(i) *Witwatersrand Gold Mines.*—In considering the return to investors in gold mining enterprises, opinions are at variance as to the best means of estimating the rate of profit. The usual practice with limited liability companies of quoting the percentage that the amount of dividend in any one year bears to the amount of capital issued is generally considered to be open to objection in the case of mining companies, as such capital does not usually represent the actual amount of money invested in the concern. The Actuary of the Transvaal Chamber of Mines in evidence furnished to the Mining Industry Board in 1922 took the figure of the total capital of Witwatersrand gold mines, admitted as amortizable by the Inland Revenue Department as at 31st December, 1921, and, using the amount of dividends for the year 1921 less the amount of amortization allowed for that year, arrived at a return of 4½ per cent. He, however, contended that as the amount of amortizable capital did not include capital issued for vendor's interest this figure would probably have to be doubled, thus reducing the rate of interest to 2¼ per cent. Since amortizable capital diminishes year by year, the basis of calculation, while possibly reflecting the position in the year mentioned, seems unsuitable.

Professor R. A. Lehfeldt, of the Witwatersrand University, in a paper read before the Chemical, Metallurgical, and Mining Society of South Africa in February, 1923, made a calculation based on the assumption that an imaginary investor had bought up the whole of the Witwatersrand gold mines in June, 1907, at market price, had supplied all the money required in the period for further capital, debentures, loans, etc., and had disposed of his investment at market price on 31st December, 1921. He deduced that over this period of fourteen and a half years the investor had received 6·2 per cent. on the sums invested in the beginning, and from time to time.

Taking the actual indebtedness of Witwatersrand gold mines, which includes issued capital, debentures, premiums, loans, and advances, amounting at 31st December, 1924, to £59,432,404 according to the statistics of the Government Mining Engineer, and comparing this with dividends paid, amounting to £9,557,657, a return of 16·1 per cent. is obtained for the year 1924. Similar figures for 1923 are—total indebtedness £68,137,988 and dividends £8,460,343, giving a return of 12·4 per cent. Any amounts appropriated from profits for working capital are not included in the "total indebtedness" figures quoted, as such amounts are not strictly funds received for which the industry is responsible to make some return, but may be deemed to be included in "costs." If for the two years mentioned the amounts of dividends are compared with the issued capital only, then the returns show 20·5 per cent. and 16 per cent. respectively. These figures are further analysed in the following table :—

DIVIDEND-PAYING, NON-DIVIDEND-PAYING, AND NON-PRODUCING MINES, 1923 AND 1924.

Year.	Dividend-Paying Mines.	Average Dividend on Issued Capital.†	Producing Mines Non-Dividend-Paying.	Non-Producing Mines.
	Number.	Per cent.	Number.	Number.
1923...	31	34·7	14	29
1924...	33	30·7	18	26

* The Government while agreeing to the amalgamation, which was ultimately arranged between the two mining propositions concerned, refused to guarantee the £250,000 second debentures.
† Of mines paying dividends.

(ii) *Outside Districts.*—In considering the return on money invested in mining enterprises in the districts outside the Witwatersrand, embracing gold, copper, and tin ventures, but excluding coal and diamond mines, the Inspector of Mines, Pretoria (Mr. T. G. Trevor), reviewed the operations of all the 464 concerns within his inspectorate which had been reported to the Mines Department during the ten years from 1904 to 1914. He divided the operations into four stages, viz.: (*a*) The preliminary prospecting stage, (*b*) the exploration prospecting stage, (*c*) the development stage, and (*d*) the producing stage. It was found that 141 ventures never got beyond the first two stages, 122 closed down after doing some development, and of the 201 mines which reached the producing stage, 70 were still producing at the end of the period. Of these 70, however, only 30 survived in May, 1919, the date of his review, 20 of which had been highly successful, 8 unsuccessful, and 2 doubtful. He estimated the total amount of money put into the whole 464 ventures as follows:—

	£
Stages (*a*) and (*b*)	70,500
Stage (*c*)	305,000
Stage (*d*)	5,085,000
	£5,460,500

and the value of the metals produced as:—

	£
Gold	7,740,438
Tin and Copper	2,792,721
	£10,533,159

The expenses incurred in wages and stores and on account of taxation and mining licences during the ten years were calculated at £8,766,336, leaving a balance of £1,766,823 to pay all other expenses, amortization, and interest for the period on the £5,460,500 capital, which is regarded as an insufficient return on the whole amount. Several of the successful enterprises, however, showed very handsome profits on the money invested in them, and are to be looked upon as the prizes, without which there would be no incentive to the raising of money for such speculative ventures.

The following tables, showing the liabilities and assets of Transvaal gold mines since 1911, contain particulars which are relevant to the question of the capital invested in the gold-mining industry:—

(i) TRANSVAAL GOLD MINES—LIABILITIES, 1911 TO 1924.

Year.	Capital Issued.	Debentures.	Premiums.	Temporary Advances.	Sundry Creditors.	Outstanding Credit Balances.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911	73,348	8,777	8,908	3,281	2,912	18,550	115,776
1912	70,562	8,690	8,171	2,642	2,522	21,474	114,061
1913	67,836	8,890	8,456	1,752	2,487	22,404	111,825
1914	65,825	8,401	8,193	2,101	2,388	23,732	110,640
1915	64,157	7,702	7,859	2,172	3,201	24,794	109,885
1916	63,799	7,164	7,275	2,016	3,614	26,657	110,525
1917	63,964	6,686	7,117	1,903	3,442	25,686	108,798
1918	63,477	5,899	7,312	2,061	3,405	24,959	107,113
1919	65,590	6,192	7,681	2,012	4,941	27,235	113,651
1920	65,510	5,706	7,910	2,404	5,543	30,051	117,124
1921	64,673	5,376	8,035	2,482	5,613	31,306	117,485
1922	59,651	4,292	7,699	3,917	3,898	29,306	108,763
1923	58,152	4,728	7,659	3,439	4,888	30,408	109,274
1924	51,603	4,033	7,055	2,189	5,651	30,510	101,041

(ii) TRANSVAAL GOLD MINES—ASSETS, 1911 TO 1924.

Year.	Mining Property.	Shafts and Mine Development.	Equipment.	Stores, Furniture, Etc.	Investments.	Cash.	Other Assets.	Deficiency of Assets.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911...	46,087	18,508	31,785	1,373	2,624	7,202	5,620	2,577	115,776
1912...	44,431	18,429	31,110	1,120	2,410	8,760	5,242	2,559	114,061
1913...	42,293	19,626	31,841	1,054	2,255	8,408	4,778	1,570	111,825
1914...	40,918	20,322	31,715	1,373	1,676	8,440	4,703	1,493	110,640
1915...	38,363	23,718	29,227	2,021	1,627	8,244	5,048	1,637	109,885
1916...	39,842	20,821	31,411	3,267	1,488	7,816	4,553	1,327	110,525
1917...	38,887	19,117	31,758	3,923	2,489	6,480	4,705	1,439	108,798
1918...	38,143	19,468	31,844	3,954	2,048	5,987	4,309	1,360	107,113
1919...	38,691	20,994	32,412	2,927	2,527	6,231	8,246	1,623	113,651
1920...	36,364	22,521	32,929	2,954	2,935	8,821	7,346	3,254	117,124
1921...	35,253	23,575	33,088	2,277	3,167	7,364	8,131	4,630	117,485
1922...	34,103	22,536	32,157	1,687	1,195	7,384	7,781	1,920	108,763
1923...	33,126	22,706	32,730	1.589	1,122	8,679	7,749	1,573	109,274
1924...	27,991	20,611	30,563	1,616	1,260	11,323	5,939	1,738	101,041

15. **Costs and Yield of Gold Mining (Witwatersrand).**—The following table of the number of tons milled, the yield per ton, the working costs, working profits, and dividends paid per ton milled and per fine ounce recovered for the Witwatersrand gold mines has been prepared from the annual reports of the Transvaal Chamber of Mines, and refers to the returns of member companies of the Chamber. Gold held in reserve, expenditure charged to capital account, interest on and redemption of debentures and profits tax have not been taken into account in arriving at the working profits. For various reasons the working profit shown is not in all cases the exact difference between the yield as shown and the working costs as shown, but in the yearly averages shown below the difference is very slight. The value of the gold premium has been included in the figures from 1919.

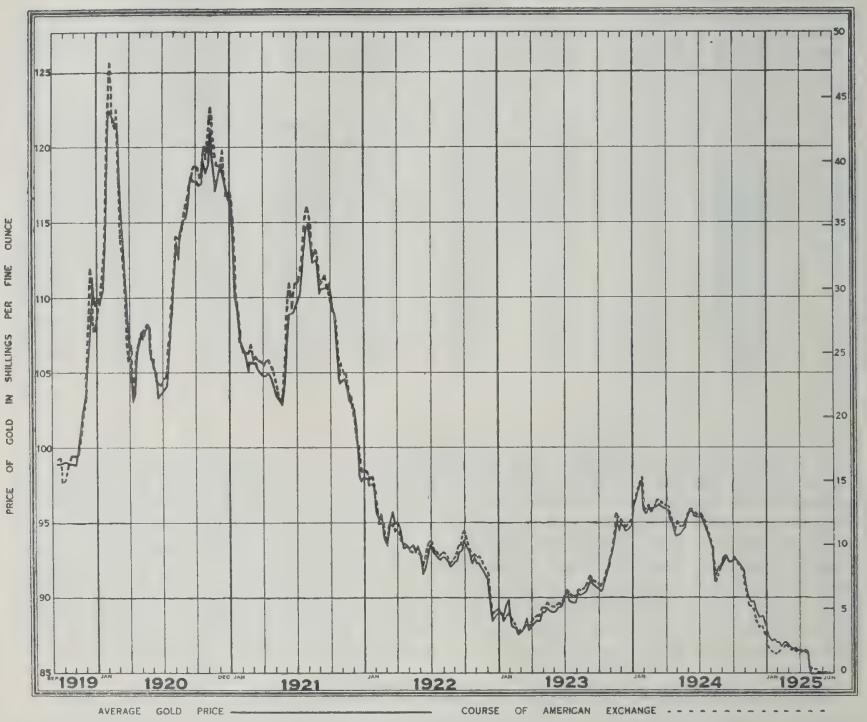
COSTS AND YIELD OF GOLD MINING—WITWATERSRAND, 1910 TO 1924.

Year.	Tonnage Milled.	Per Ton Milled.					Per Fine Ounce Recovered.		
		Gold Produced.		Working Costs.	Working Profit.	Dividends Paid.	Working Costs.	Working Profit.	Dividends Paid.
		Quantity.	Value.						
	1,000 Tons.	dwt.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910	21,433	6·70	28 6	17 7	10 6	8 3	52 5	31 3	24 9
1911	23,888	6·57	27 11	18 0	9 7	6 6	54 10	29 1	19 9
1912	25,486	6·82	29 0	18 8	10 0	6 3	54 8	29 2	18 3
1913	25,628	6·54	27 9	17 11	9 6	6 5	54 9	29 0	19 7
1914	25,702	6·23	26 6	17 1	9 0	6 3	54 10	28 10	19 0
1915	28,315	6·18	26 3	17 5	8 5	5 5	56 5	27 3	17 5
1916	28,525	6·27	26 8	18 1	8 2	5 0	57 7	27 0	15 10
1917	27,252	6·38	27 1	19 2	7 6	4 10	60 2	23 6	15 1
1918	24,923	6·56	27 11	21 7	6 0	4 2	65 8	18 4	12 7
1919	24,044	6·72	31 7	22 11	8 6	5 1	68 1	25 6	15 1
1920	24,096	6·53	35 3	25 8	9 7	6 10	78 2	29 1	21 0
1921	23,401	6·73	35 2	25 8	9 6	6 1	76 5	28 2	18 2
1922	19,513	6·90	31 4	23 6	8 0	5 10	67 9	22 11	16 9
1922*	—	6·87	31 1	21 2	9 11	—	61 7	28 10	—
1923	26,539	6·66	29 5	20 0	9 5	6 4	60 0	28 4	19 0
1924	28,209	6·55	29 10	19 7	10 3	6 9	59 8	31 4	20 8

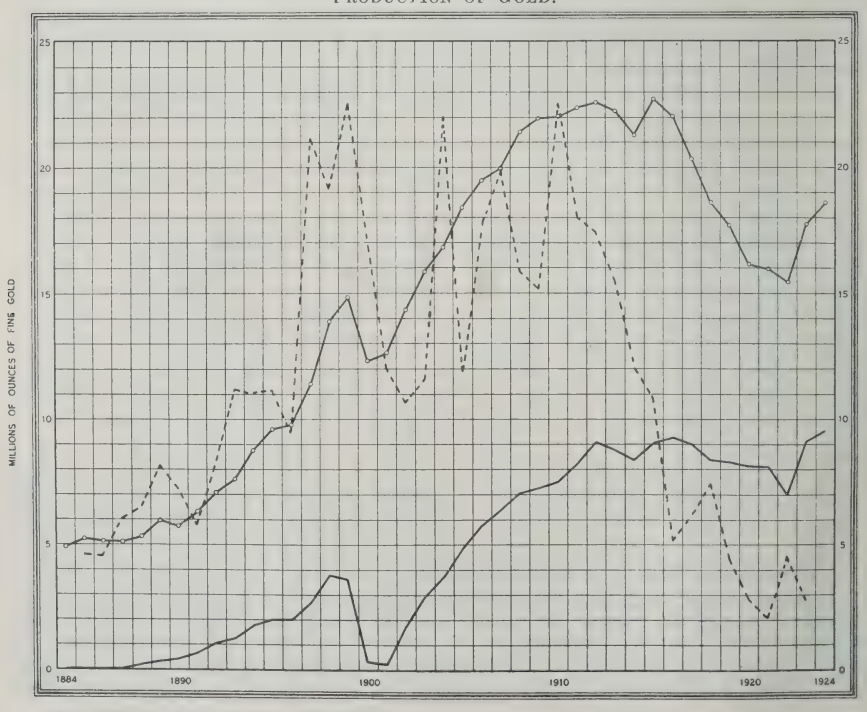
* Excluding period January to March. The cleaning up at Springs Mines and Modder "B" in December, amounting to 36,930 oz., value £141,732, is excluded from the calculations for 1922.

16. **Prices and Disposal of South African Gold.**—On the outbreak of war in August, 1914, it was deemed inadvisable to make weekly shipments of gold, but it was necessary to make arrangements whereby the mining companies could obtain cash for the payment of wages in the Union and supplies, etc., in London. An agreement was made early in August, 1914, under which South African gold was purchased by the Bank of England at the standard rate as soon as it was deposited in the South African banks in the name

COMPARISON BETWEEN THE PRICE OF GOLD IN LONDON AND THE APPRECIATION OF THE AMERICAN DOLLAR IN TERMS OF STERLING SINCE THE ESTABLISHMENT OF THE FREE GOLD MARKET IN 1919.



PRODUCTION OF GOLD.



of the Minister of Finance of the Union to the order of the Bank of England. The producers could then draw on the Bank of England advances up to 97 per cent. All charges for refining, insurance, freight, etc., had to be borne by the producers, which meant during the war increased reazliation charges of approximately £400,000 per annum. The charge for insurance and freight was fixed at 25s. per cent.

This agreement was terminated on the 25th July, 1919, from which date it was arranged that all gold deposited with South African banks would be shipped to England by the producers, consigned to the Bank of England, but sold by the producers' agents on their behalf in the best available market. Before that date 50,000 ounces of gold were released by the Bank of England for the purpose of a test or trial sale and realized, through the agents of the gold producers on the latters' behalf, 85s. 6d. per standard ounce or 93s. 5d. per fine ounce, an increase of almost 10 per cent. This was the beginning of what is generally known as the gold premium. Since then the price of gold has fluctuated greatly, reaching a maximum of 127s. 4d. per fine ounce on the 5th February, 1920, as shown in the subjoined table. As the currency of United States of America remained on the gold basis there is a close correspondence between the London-New York exchange and the price of gold. The graph on page 504 shows the variation in the price of gold and the appreciation of the dollar in terms of sterling.

The agreement made in July, 1919, was amended from the 1st August, 1923, when a new arrangement came into effect, by which producers were enabled to ship gold, including coin, to destinations other than the United Kingdom, on providing certain particulars to the Bank of England. As a result of this arrangement shipments of gold began to be made direct from Durban to Bombay.

Early in 1925 the continuous appreciation of sterling in terms of dollars, combined with the fact that the South African pound, when measured by the South African-London exchange rate, was at a premium with the English pound, made it profitable to bring gold to the mint or to sell it to the South African Reserve Bank.

Although the premium on gold in London existed until the 29th April, 1925, when Great Britain returned to the gold standard, gold was practically at parity in South Africa from the end of 1924.

The following table, showing the quarterly and yearly averages of the price of gold in London and the pound sterling in terms of dollars, has been constructed from the average of the daily quotations :—

VARIATIONS IN THE PRICE OF GOLD IN LONDON, THE PRICE OF £1 STERLING IN TERMS OF DOLLARS, AND THE AVERAGE PRICE OBTAINED FOR TRANSVAAL GOLD, SEPTEMBER, 1919, TO DECEMBER, 1925.

Date.	Price of Gold in London per Fine Ounce.					Average Price Obtained for Transvaal Gold.*	Value of £1 (London and New York).†
	Highest Point Reached.	Date when Reached.	Lowest Point Reached.	Date when Reached.	Average.		
	s. d.		s. d.		s. d.	s. d.	$
1919, Sept.–Dec..	111 5	17 Dec.	98 5	Oct.	103 3	105 3	4 07
1920.....	127 4	5 Feb.	102 7	9 Apr.	112 11	111 9	3·66
1921.....	115 11	3 Jan.	97 7	21 Dec.	106 11	106 10	3·85
1922 1st Quarter	98 4	5 Jan.	93 3	1 Mar.	95 10		4·32
2nd ,,	95 0	1 Apr.	91 6	7 June	93 6		4·44
3rd ,,	93 10	28 Sept.	92 0	18 Aug.	92 8		4·45
4th ,,	94 0	2 Oct.	88 5	13 Dec.	91 6		4·51
Year.....	98 4	5 Jan.	88 5	13 Dec.	93 4	92 3	4·43
1923, 1st Quarter	90 0	29 Jan.	87 5	21 Feb.	88 5		4·68
2nd ,,	89 11	29 June	88 1	3 Apr.	89 0		4·63
3rd ,,	91 4	5 Sept.	89 5	16 July	90 4		4·56
4th ,,	96 11	19 Nov.	90 4	5 Oct.	93 3		4·42
Year.....	96 11	19 Nov.	87 5	21 Feb.	90 3	90 3	4·57
1924, 1st Quarter	98 0	21 Jan.	95 1	4 Feb.	96 3		4·29
2nd ,,	95 11	1 Apr.	93 10	23 Apr.	95 0		4·34
3rd ,,	95 6	1 July	90 8	12 Aug.	93 0		4·44
4th ,,	92 11	7 Oct.	88 0	30 Dec.	90 6		4·60
Year.....	98 0	21 Jan.	88 0	30 Dec.	93 8	93 5	4·42
1925, 1st Quarter	88 5	7 Jan.	86 4	13 Mar.	86 11		4·78
2nd ,,	86 7	15 Apr.	84 11	30 June	85 5		4·84
3rd ,,	84 11½	15 July	84 10½	7 July	84 11		4·86
4th ,,	84 11½	1 Oct.	84 10	17 Dec.	84 11		4·85
Year.....	88 5	7 Jan.	84 10	17 Dec.	85 7	‡	4·83

* Less realization charges. † Par = 4·8665 dollars to the £1. ‡ Not available.

In the subjoined table the distribution of gold *mined in all parts of British South Africa* is shown. The figures are derived from information supplied from London to the Transvaal Chamber of Mines, and the inclusion of gold produced in parts of South Africa outside the Union is due to the difficulty of distinguishing the statistics in question according to the territory of production.

DISTRIBUTION OF GOLD FROM ALL PARTS OF SOUTHERN AFRICA SOLD IN LONDON, 1921 to 1924.

Sold to.	1921.	1922.	1923.	1924.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.
New York	8,247,837	4,491,981	4,602,571	3,860,393
India	359,243	2,846,015	3,654,102	2,261,197
India *via* Durban *	—	—	368,446	3,506,382
East Indies	14,501	—	2,418	1,210
Straits Settlements	13,785	84,606	62,741	1,436
East Africa	—	249	—	—
West Africa	300	503	4,215	8,034
Egypt	—	8,375	—	5,120
Java	—	—	—	5,322
Continent of Europe	26,785	177,993	1,218,066	698,042
Trade	12,473	73,997	81,194	153,531
Destination not specified	—	—	—	10,853
Sold forward *ex* Cape Town	—	—	—	341,572
TOTAL	8,674,924	7,683,719	9,993,753	10,853,092

* Shipped direct to Bombay.

17. **The System of Leasing of Gold Areas.**—The history of the development of the mining lease system, established under the Transvaal Act No. 35 of 1908, was recorded in the sixth issue of this *Year Book*.

Seven areas have been leased under the terms of Act No. 35 of 1908; particulars of these are given in the following table :—

GOLD AREAS LEASED (ACT No. 35 OF 1908).

Situation.	Extent of Area Leased (in Claims).	Company Working Area Leased.	Extent of Company's Holding, including Leased Claims.	Nominal Capital.
	No.		No.	£
Modderfontein No. 17	1,275	Government Gold Mining Areas, Modderfontein Consolidated, Limited	2,633	1,400,000
Modderfontein No. 17	1,358			
Brakpan No. 5	1,812	Brakpan Mines, Limited	3,387	1,020,000
Modderfontein No. 6	650	Modderfontein East, Limited	2,650 (approx.)	465,485
Rietfontein No. 14	2,236	Springs Mines, Limited	3,568	1,500,000
Elandsfontein No. 11	13	Craigie Mines, Limited	62	12,500
Doornfontein No. 5 and No. 24	27			
Geduld No. 24	932	New State Areas, Limited	2,108	1,500,000
De Springs No. 15	1,176			
Rietfontein No. 8	2,236	West Springs, Limited	2,236	1,573,190

† All these areas are on the Far East Rand with the exception of the small area of the Craigie Mines, Limited, which is in the Central Rand, on portion of the abandoned Treasury gold mine.

The terms under which these areas have been leased are practically identical, excepting those defining the share of the annual profits of the companies working the areas payable to the Government in consideration of the rights granted. The Government Gold Mining Areas, Limited, is the only lease company which is exempt from payment of taxation on profits of mining.

The share of the profits of the companies working these leased areas payable to the Government is in the case of the Modderfontein East, Limited, a fixed percentage of 10 per cent., but in the cases of other companies it varies with the ratio that the profit bears to the

recovery and is calculated upon a sliding scale so devised that the company receives a fixed proportion of any reduction in costs it may make and another fixed proportion of any increase in recovery it may effect, subject, in some of the leases, to minimum percentages.

The general form of the sliding scale is: $y = a - \frac{b}{x}$, where y is the percentage of profits payable to the Government, x is the ratio of profit to recovery expressed as a percentage and a and b are constants agreed to in the lease.

The following table shows the scale in each case and illustrates its results:—

LEASE COMPANIES—GOVERNMENT SHARE OF PROFITS.

Ratio of Profit to Recovery expressed as a Percentage.	Percentage of Profit Payable to Government.					
	Govt. Gold Mining Areas.	Brakpan.*	Springs.*	Craigie.†	New State Areas.	West Springs.
10	10·75	12·50	12·50	12·50	5·00	Nil.
20	24·08	12·50	12·50	12·50	42·50	32·50
30	35·62	12·50	15·83	14·00	55·00	43·33
40	46·33	21·25	25·62	22·00	61·25	48·75
50	53·56	27·00	31·50	26·80	65·00	52·00
60	58·39	30·83	35·42	30·00	67·50	54·17
Scale y =	‡	$50-\frac{1150}{x}$	$55-\frac{1175}{x}$	$46-\frac{960}{x}$	$80-\frac{750}{x}$	$65-\frac{650}{x}$

* During the first five years of the lease the percentage is the fixed one of 5 per cent., and after wards the scale is subject to a minimum of 12½ per cent.

† Subject to a minimum of 12½ per cent.

‡ $y = 5{\cdot}467 + 1{\cdot}06487\ x - \frac{53{\cdot}66}{x}$, where x is less than 36·1702, $y = 82{\cdot}5 - \frac{1446{\cdot}81}{x}$, where x is greater than 36·1702, subject to a minimum of 10·75 per cent. and a maximum of 61·25 per cent.

All seven of these companies had reached the producing stage by 31st December, 1924, and the Government's share of their profits up to that date amounted to:—

	£
Government Gold Mining Areas (Modderfontein) Consolidated, Limited	6,143,413
Brakpan Mines, Limited	303,086
Springs Mines, Limited	380,779
Craigie Mines, Limited	Nil.
Modderfontein East, Limited	17,497
New State Areas, Limited	117,689
West Springs	Nil

Under section 46 of the 1908 Act the powers of the Governor-General in regard to the leasing of mineral ground were restricted to areas each large enough, in the opinion of the Government Mining Engineer, to make one workable mining proposition, but in sections 2 and 3 of Act No. 30 of 1918 these powers are widened to permit the grant of leases of the undermining rights insufficient in extent to constitute workable propositions. These smaller areas are not advertised for tender, but are applied for by adjoining mining companies who are in the best position to work them. All such applications are submitted to the Mining Leases Board (the statutory body appointed to deal with all questions connected with the mining lease system) for report and recommendation, before the final approval by the Governor-General is given.

The Mining Leases Board deals also in a similar manner with applications for the under-mining rights of ground, such as *bewaarplase*, water-rights, machine stands, townships, railways etc., which have been vested in the Crown in terms of section 52 of Act No. 35 of 1908, and which are too small to constitute in themselves workable mining propositions.

Since the promulgation of Act No. 30 in June, 1918, to the 31st December, 1924, there have been disposed of to adjoining mines, under the terms of this Act and of section 52 of Act No. 35 of 1908, twenty-five areas, each of which was too small to constitute a workable mining proposition. Of these, fifteen, comprising 805 claims, have been sold for cash, and ten, comprising 1,430 claims, have been leased, including an area of 449 claims contiguous to a *mynpag* and leased to the owners thereof in order that the combined area should form a workable mining venture.

18. **Rand Refinery, Limited.***—This is a private company, the shareholding being confined to gold mining companies, members of the Transvaal Chamber of Mines. The works are situated at Germiston and the principal operations consist of refining the gold bullion produced by the gold mines on the Witwatersrand and elsewhere. The refinery was completed in December, 1921, and a note on its organization and activities will be found in the sixth and seventh issues of the *Year Book*.

The following is a summary of its operations since its inception on the 22nd December, 1921, to the 30th September, 1924 :—

RAND REFINERY, LIMITED.—SUMMARY OF OPERATIONS SINCE DECEMBER, 1921.

Period.	Bullion Receipts.			Bullion Issues.	
	Gross Weight.	Containing.		Fine Gold.	Fine Silver.
		Gold.	Silver.		
	Oz.	Standard oz.	Fine oz.	Standard oz.	Fine oz.
22nd Dec., 1921, to 30th Sept., 1922.	4,283,454·35	4,133,818·84	391,949·05	3,870,785·92	215,740·19
Year ended 30th Sept., 1923.....	10,227,565·55	9,820,399·04	893,384·72	9,933,494·48	918,201·76
Year ended 30th Sept., 1924.....	10,669,989·51	10,227,514·69	911,277·36	10,121,825·72	904,413·48
TOTAL.....	25,181,009·41	24,181,732·57	2,196,611·13	23,926,106·12	2,038,355·43

§ 4. Copper.†

1. **General.**—Copper occurs in the Union in the Transvaal, Cape, and Natal Provinces but in Natal the deposits discovered have not been commercially exploitable. In the Cape Province the only deposits that have proved of much economic importance are those of Namaqualand, but at Areachap, to the west of Upington, a copper lode has been opened up in the Kheis quartz schists, whilst quartz veins carrying copper are also present in various parts of Hay, Gordonia, and Prieska, in the same and younger formations.‡ In the Mount Ayliff district of East Griqualand, copper pyrites and pyrrhotine have also been found, in association with nickel, and a certain amount of platinum, along the junction of the Karroo sediments with the great mass of intrusive norites forming the Insizwa Mountain.‡ In the Transvaal, the only producer so far has been the Messina Company, operating in the Zoutpansberg district, but there are numberless ancient surface workings for copper in the northern districts, and as development of the country proceeds, some at least of these will doubtless prove workable propositions. As this copper area lies in latitude 22° 15′ and at an altitude of less than 2,000 feet, it was at one time regarded as uninhabitable by white families, and in the early days the Messina Mine was frequently shut down owing to all hands suffering from malaria. Stringent anti-malaria precautions have since been taken, and it is satisfactory to note that the health conditions for several years past have been excellent, and that fever no longer causes any appreciable inconvenience.

2. **Discovery of Copper and Development of Mining.**—It is known that copper, tin, and iron deposits were worked by the ancients. Owing possibly to a lack of interest there is, however, very little information available as to the history of any such ancient industry in these metals, but very large workings for both are in existence and are probably partially contemporary with the gold workings. The copper deposits of Katanga (Belgian Congo) are enormous, having already a large output, although the producing stage has only recently been reached. The old copper workings of Rhodesia can be classed as comparatively small and have no great output at present. They cover a very large extent of country, but owing

* An article on the Royal Mint at Pretoria, which was established conditional upon the mining industry erecting a refinery, will be found in Chapter XXIII.

† This section is a summary of articles by Mr. U. P. Swinburne, A.R.S.M., F.G.S., M.I.M.M. M.I.M.E., Mr. T. G. Trevor, A.R.S.M., F.G.S., and Mr. G. E. B. Frood, M.A., M.I.M.M., which appeared in previous issues of this *Year Book*.

‡ Rogers and Du Toit: "Geology of Cape Colony."

to the low price of the metal have not been very extensively exploited. Further south and in the same class of mineral belt the Messina Copper Mines, situated on ancient workings, produced a steady output of mineral for a number of years. So-called ancient copper workings are also abundant elsewhere in the Transvaal, but whether these are the work of natives or of prehistoric miners of Indo-European stock has not been satisfactorily determined.

The existence of copper ore in Namaqualand seems to have been known since the earliest days of colonization, and in the days of Governor Simon van der Stel a futile attempt seems to have been made to turn the knowledge to account. The earliest shipment of copper ore took place in 1852 and was won at Springbokfontein, in Namaqualand.

The early efforts of the miners and prospectors do not appear to have been very successful, and it was only with the start of the great companies, with which the subsequent production of copper in the Cape Province has been almost exclusively associated, that the possibilities of the mines began to attract general attention. Of these companies, the Cape Copper Mining Company, Ltd. (now the Cape Copper Company, Ltd.) was registered in 1863, whilst the Namaqua United Copper Company, Ltd. (reconstructed since into the Namaqua Copper Company, Ltd.), followed in 1887. The success attending the operations of these two companies places them high amongst the great copper mines of the past. Their financial success, in particular, is evidenced by the former having returned to its shareholders between 1864 and the end of 1915 no less than £4,675,450, whilst the latter has distributed up to the end of 1916 dividends equal to 438¾ per cent. of its issued capital. In gauging these results, it has to be kept in view that, owing to the remoteness of the district and other circumstances, the working expenses and costs of realization have always been comparatively high.

At least a dozen mines have contributed appreciably to the copper output of this field, but the most important have been those of O'okiep and Nababeep, belonging to the Cape Copper Company, and Tweefontein owned by the Namaqua Copper Company. Each company, however, still owns smaller workings, which are called upon as occasion demands. The great decline in the price of copper, which commenced in 1918, led to the cessation of operations in the Namaqualand mines in April, 1919. Smelting operations were restarted towards the end of 1922.

Owing to local conditions, no attention was paid to base metals in the Transvaal until 1901, when a group of very extensive ancient surface workings on the lower Limpopo Valley attracted the attention of some Rhodesian capitalists. After several years of unsuccessful work, these were developed into the present Messina Copper Mine. Progress was rapid for a time as, starting with a production of 165 tons of copper for the year 1906, the output of metal had risen to 5,970 tons for the company's financial year 1914–15. Owing to the fall in the price of copper, however, production was suspended in May, 1920, but in the latter part of 1922 operations were resumed, and the mine was working at its full capacity from 1923.

3. **Production of Copper.**—The following table gives particulars of the value of copper sold in and shipped from the Union from 1857 :—

COPPER ORE SOLD OR SHIPPED, UNION, 1857 TO 1924.

Year.	Cape.			Transvaal.		
	Tons.	Per cent. of Metal.	Value.	Tons.	Per cent. of Metal.	Value.
			£			£
1857–1862.....	22,343	—	605,458	—	—	—
1863–1882.....	211,500	—	4,308,433	—	—	—
1883–1903.....	943,658	18·99	8,336,509	—	—	—
1904.....	—	—	—	14	—	668
1905–09 (av.).....	*	*	484,833	981	*	30,934
1910–14 (av.).....	13,858†	47·30†	430,901	5,428	44·95	126,442
1915.....	13,973	44·48	517,208	14,996	43·38	525,106
1916.....	10,599	44·52	474,076	12,243	47·40	663,304
1917.....	10,525	47·66	550,642	9,606	51·44	575,398
1918.....	1,669	48·51	68,622	5,206	53·28	273,483
1919.....	276	74·62	17,656	4,610	60·70	216,789
1920.....	7,892	38·33	255,157	2,988	64·61	163,112
1921 ‡.....	113	72·60	5,026	45	51·27	1,420
1922.....	706	93·33	38,622	—	—	—
1923.....	2,846	97·19	159,713	6,613	61·03	244,798
1924.....	3,384	97·51	187,745	6,575	85·63	343,079

* No record. † Average of 1911–14. ‡ Mining practically at a standstill.

4. **Ore Deposits and Methods of Mining and Treatment.**—Particulars of ore deposits and methods of mining and treatment were given in previous issues of this *Year Book*, but have not been repeated owing to exigencies of space.

§ 5. Tin.*

1. **Discovery and Mining of Tin.**—There is evidence to show that tin was worked in the past and some of the tin mines of to-day are on areas that were mined fairly extensively by the ancients. The ancient tin workings of the Transvaal and surrounding country are, so far as has been ascertained, confined to deposits and tin-bearing lodes in the granites, quartzites, and felsites, and none of the present-day alluvial tin areas had ever been worked by the ancients.

Cassiterite was discovered both in the Cape Province and in Swaziland in the final decade of the last century, but it was not till 1902 that serious attention was turned to its exploitation. Later, in 1904, cassiterite was also found in the Bushveld area of the Transvaal, a discovery which has since developed in an extremely satisfactory manner, so that the Transvaal has taken its place as a permanent and important producer of tin on the markets of the world.

Three areas are now producing tin: (i) Cape Province; (ii) Eastern Transvaal; and Swaziland (though this native territory is not politically incorporated in the Union, economically it has no separate existence, and is therefore mentioned in this statement); (iii) Transvaal Bushveld.

(i) *Cape Province.*—Cassiterite has been found at various points in the west of the Cape Province, but has only been worked to any extent in the neighbourhood of Kuils River, sixteen miles from Cape Town, on the Stellenbosch railway line. The tin is there found chiefly in association with quartz, but to a small extent also with greisen, in broken lodes traversing the granite of the Bottelary-Stellenbosch mass, close to its junction with the Malmesbury slates. Wolfram is also prominent in the lode matter, especially near the surface. These lodes have been opened up to some extent, and are said to have proved rich in places, but the very broken character of the deposits has hitherto militated strongly against successful exploitation. As the result of the denudation of the lodes, detrital accumulations of cassiterite have been found in the creeks leading down from the hills, and in the lower lying ground, towards the south. This alluvial has been worked with some success, as much as 300 tons of high grade concentrates having been reported as produced in the years 1906 and 1907.

The total tin shipped from the Cape Province up to 31st December, 1924, was valued at £61,427.

(ii) *Eastern Transvaal and Swaziland.*—The cassiterite in this area is only worked as alluvial, but it is undoubtedly derived from the many large pegmatite veins that traverse the older, or grey granite, which here makes the escarpment of the South African plateau. These pegmatites have not yet been found workable, though cassiterite crystals are not uncommon in them. This area is subject to a very heavy rainfall and strong denudation, and in the valleys running down into Swaziland ideal conditions exist for natural concentration. The tin fields extend on both sides of the border, but at present the production of tin is entirely confined to Swaziland, where one corporation holds a practical monopoly of the stanniferous area.

The ground is worked by hydraulicing and sluicing. The cassiterite is very coarse, and no mechanical dressing is required. About half a million cubic yards of ground is annually treated, giving about 1·8 lb. black tin per yard. The value per yard is given in normal times (with tin at £139) at 2s. 2d., and the total working cost at 11·6d. The concentrates shipped carry 71 per cent. metallic tin, and are remarkably free from any deleterious impurity. Many of the rarer minerals of thorium and tungsten are found in the concentrates, but not in commercial quantities. At the present rate of working it is stated that the known deposits are sufficient for twenty years. The export from these fields is about 300 tons cassiterite per year; but this is not included in the returns for the Union.

(iii) *Transvaal Bushveld.*—In the central or Bushveld area of the Transvaal, cassiterite was first discovered in 1904. This area is geologically notable as consisting of an immense lacolite of red granite, intrusive between the Pretoria and the Waterberg formations. With its subsidiary felsites and contact zones of metamorphic alteration this covers an area some 250 miles from east to west, by 100 miles from north to south. Cassiterite is found both in the granite and in the felsites and sedimentary rocks in direct contact with it. In the felsites the mineral occurs irregularly along joints and bedding planes, and so far the workings in this rock have never been attended with success.

In the sedimentary rocks, the Rooiberg and Leeuwpoort mines have been working most successfully in fissure veins, traversing a mass of quartzites and shales, of undoubted sedimentary origin, which are enveloped in the granite. At Rooiberg these veins are vertical, and do not carry more than 1 per cent. to 1·5 per cent. of tin, but their value consists of lateral enrichments which pass off into the bedding planes of the country rock

* This section is a summary of articles by Mr. U. P. Swinburne, A.R.S.M., F.G.S., M.I.M.M., M.I.M E., and Mr. T. G. Trevor, A.R.S.M., F.G.S., which appeared in previous issues of this *Year Book.*

and give pockets and bonanzas of phenomenal richness. Unfortunately these offshoots have only so far been found near the surface, none of importance having been encountered below 100 ft. At Leeuwpoort the veins are not highly inclined, and are richer in themselves than at Rooiberg, but, on the other hand, only one notable enrichment in the country rock has been found.

Besides pyrites, specularite, and a small amount of mispickel, no other metallic minerals are of obvious occurrence in these deposits.

The character of the deposits at Rooiberg and Zaaiplaats and the methods of mining were more fully described in previous issues of this *Year Book* (Nos. 1 to 4).

The crushing and dressing plants on the larger mines are thoroughly well equipped and up to date. After the preliminary concentration the concentrates are calcined and redressed, the resultant cassiterite for export containing from 65 per cent. to 70 per cent. metallic tin. All the cassiterite produced is exported to the Malay States, a more favourable market for the class of product being obtained there than in England.

In 1917 the Zaaiplaats Tin Mining Company began smelting tin for consumption in the Union. This was a war measure, and was successful during the war, but was discontinued in 1921, when normal conditions returned.

Smelting was also started at Leeuwpoort and was continued during the period of the war, but, owing to the impure nature of the ore, work was discontinued soon after peace was declared.

With regard to the permanence of the production of tin in the Transvaal, the area over which it occurs is so large and the difficulty of locating the outcrops of the pipes so great, that though it seems unlikely that any great expansion will occur, at any one period, yet it is probable that the discovery of new properties will go on for very many years.

2. **Production of Tin.**—The production of cassiterite in the Union since 1911 has been as follows :—

PRODUCTION OF TIN IN UNION, 1911 TO 1924.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons. (2,000 lb.)	£		Tons. (2,000 lb.)	£
1911.....	3,533·729	411,871	1918.....	2,206·042	440,995
1912.....	2,932·208	367,699	1919.....	1,630·168	277,925
1913.....	3,671·907	436,550	1920.....	2,463·219	435,680
1914.....	3,429·234	311,391	1921.....	1,424·534	139,688
1915.....	3,441·353	331,420	1922.....	612·154	59,986
1916.....	3,264·068	339.571	1923.....	1,424·189	170,337
1917.....	2,678·560	346,016	1924.....	2,051·120	305,398

§ 6. Other Metals.*

1. **General.**—The exploitation of the mineral resources of South Africa has been of such recent growth, and the expansion of the gold, diamond and coal industries has been so rapid and so profitable, that nearly all the available capital had been devoted to those industries, and in the past it has usually been only as a matter of accident that the presence of other minerals has been recorded. In the last ten years, however, the profitable exploitation of the tin mines and of the Messina Copper Mine has turned more attention to the question of base and rare metals, with the result that valuable finds of the rare metal platinum have been made, and these discoveries will lead to increased activity in prospecting for other minerals. The Union of South Africa is undoubtedly exceptionally rich in minerals of every description.

2. **Antimony.**—This occurs as antimonite in the gold reefs of the northern line of the Murchison Range in the Zoutpansberg District of the Transvaal, in a very pronounced contact zone. The reefs extend for some thirty miles. They are to a certain extent lenticular, but occurring again and again on the same horizon, and being up to 20 feet in width, make workable masses of ore, which have been developed down to a depth of 200 feet.

* Summarized from articles by Mr. U. P. Swinburne, A.R.S.M., F.G.S., M.I.M.M., M.I.M.E., and Mr. T. G. Trevor, A.R.S.M., F.G.S.

The ore contains from 6 per cent. to 60 per cent. antimonite, and from 3 dwt. to 1 oz. of gold to the ton. Formerly the antimony was regarded as worthless, and as preventing the working of the gold. Recently a railway has penetrated the neighbourhood, which is only some 200 miles from the port of Delagoa Bay, and a considerable quantity of hand-picked antimonite was exported during the early part of the war period. An attempt was also made to work one mine by a wet process, which included the solution of the antimonite in caustic soda and the recovery of gold from the residues by cyanide. This process, however, failed, and the mine is now shut down.

During the war period a certain amount of fused antimonite was produced by one mine. This was reduced to antimony in Johannesburg, and was used by the South African Railways for the production of white metal. Since the declaration of peace this work has been closed down.

Antimonite also occurs and has been opened up, showing a workable mass of ore, in the Steynsdorp Division of the Barberton district.

3. **Arsenic.**—This occurs as arsenical pyrites in certain gold and tin ores, and is won as arsenious oxide by the condensation of the fumes obtained when these ores or their concentrates are roasted for further metallurgical treatment. Hitherto only three mines, the Consort and the Maid of de Kaap gold mines, near Barberton, and the Stavoren tin mine in the Waterberg District, have produced arsenic.

The Union consumes close on £100,000 worth of arsenic per annum, for sheep and cattle dips and for poisoning locusts and other insects, and it is very desirable that further arsenic deposits should be developed.

4. **Asbestos.**—In the Cape Province, the Cape Asbestos Company, the first producer, commenced operations in 1893. In the Transvaal very promising deposits of asbestos of excellent quality have recently been found. The output from this Province, as well as from the Cape, has increased considerably during recent years. Asbestos occurs in Natal, and the deposits have recently received attention.

5. **Barium.**—The existence of barytes has been noted in the Transvaal at several points in the bushveld area, and also at Saltpetre Kop and Spiegel River in the Cape Province, but so far there has been no attention paid to this mineral.

6. **Bismuth.**—The occurrence of bismuth has been reported in some of the gold ores of the Sabie district, and in one of the tin mines (Stavoren), but neither occurrence is of commercial importance.

In 1897 a very rich mass of bismuthite, from which several tons were extracted, was found on the farm Geweerfontein No. 604, in the bushveld granite area of the Transvaal. A certain amount of work has recently been done on this deposit, but with indefinite results, and the work is now suspended, though indications point to the fact that this is one of the pipe-like deposits of this area from which any results may be obtained.

7. **Chromium.**—For several hundreds of miles along the margin of the bushveld granite area in the Transvaal, pseudostratified segregations of chromite have been noted.

In the Lydenburg District these segregations are several feet in thickness, and are being worked. The deposits usually contain from 35 per cent. to 45 per cent. chromic oxide, but samples have been obtained yielding up to 54 per cent. Until recently these deposits were fifty miles from rail-head and transport expenses prevented the working of them successfully.

With the completion of the Lydenburg–Steelpoort railway, the difficulty of transport has been solved, and while the output of chromite is not great at present, it is steadily increasing as the product becomes known in the overseas markets.

8. **Cobalt.**—Cobalt was one of the first minerals to be worked in the Transvaal, an extremely valuable complex ore, which fetched several hundred pounds per ton, being exported from the farm Kruis River, in the north Middelburg District of the Transvaal, in the early eighties of the last century. The deposit occurred in the contact zone of the bushveld granite, but owing to its irregularity, the mine soon closed down, and has not been reopened. Several other cobalt deposits, also connected with the bushveld granites, were opened in 1906 near the railway at Balmoral. These mines were never carried to the producing stage, but, with the attention which is now being paid to this mineral, it is probable that they will soon receive renewed attention.

Some notes by Dr. E. T. Mellor, on the field relations of these Transvaal cobalt lodes were published in the Transactions of the Transvaal Geological Society for 1915.

9. **Iron.**—Iron deposits exist all over South Africa and have been worked in bygone ages by a varied class of worker whose traces are still distinguishable, but whose records are too faint to form any reliable history. All through the country the inhabitants and others have probably worked the richer iron deposits in a crude way, smelting large quantities of iron for tools, and as a medium of exchange, while making various pigments from the iron oxides. As all the smelting was done with charcoal, an excellent class of iron was obtained.

The interest taken in South African iron deposits is gradually increasing. With high working costs and a limited market there did not until recently seem to be any prospect of an iron industry for many years to come. The continued shortage of supplies of iron and the high price due to the War have, however, put a new complexion on the case, and three smelting propositions are now being developed. Two establishments, at Vereeniging and Boksburg, for the working up of scrap iron have been in successful operation for some years, and have proved of great utility in the general scarcity of steel and iron.

Previously to the year 1910 it was believed that the huge masses of magnetic iron ore, which are obvious throughout the margin of the Transvaal bushveld and in many of the older schistose areas, were valuable iron ores. The great beds of siliceous ore, which occur in the Transvaal system especially around Pretoria, were also regarded in the same light, and, therefore, no further work either in prospecting for iron ore or in recording deposits was ever undertaken. In that year Mr. Harbord was brought out to South Africa by the Union Government to report on the prospects of starting an iron industry on these deposits.

Mr. Harbord's report was distinctly discouraging, as he pointed out that a titaniferous ore is not at present workable under economic conditions, while the siliceous ores were of themselves too siliceous to be payable. This report, while condemning the deposits then known, has had the most beneficial results. Finding that these obvious deposits were unworkable, attention was immediately drawn to other deposits, of which up to that time no notice had been taken, and extremely good ores have, as a result, been found in vast quantities.

Several companies have been formed for the smelting of ores and production of steel. These are :—

(1) *Vereeniging* and (2) *Newcastle, Natal.*—The smelting works of the Union Steel Corporation of South Africa, Ltd., at Vereeniging, work up iron and steel scrap, and during 1924 produced 21,051 tons of a value of £330,640. The bulk of the output is produced by smelting in open-hearth furnaces, but there is also one Heroult electric furnace for special steel castings. The company recently amalgamated with a company which erected smelting works at Newcastle,* but did not reach the producing stage. These works are being brought to completion, and it is intended to smelt iron from ores in northern Natal. The capacity of the plant is 50,000 tons of pig-iron per annum.

(3) *The South African Iron and Steel Corporation, Ltd.*—This company has works for the smelting of iron from ores at Pretoria, but these are standing idle pending the raising of further capital.

(4) *The Dunswart Iron and Steel Works, Ltd.*, and

(5) *The Witwatersrand Co-operative Smelting Works, Ltd.*—These two concerns are established on the Witwatersrand and produce steel from scrap.

The total amount of iron and steel goods produced in 1924 by the companies mentioned under (1), (2), (4), and (5) was 31,828 tons of a value of £522,549. They gave employment to 343 white persons and 919 coloured.

Very large deposits of iron ore of excellent quality occur at various places in the Union, but some of the best are not yet easily accessible by rail. Coke suitable for smelting is available, as is also limestone for fluxing.

A general report by Professor Stanley on the iron and steel industry in South Africa appeared in the *South African Journal of Industries* for May, July, and August, 1920.

10. **Lead.**—Before the introduction of breechloading arms and fixed ammunition, lead for bullets was smelted in the Transvaal, but the introduction of fixed ammunition killed that embryo industry. Later, in 1892, an argentiferous galena was mined, and smelting works were erected, near the present railway station of Argent, some fifty miles east of Johannesburg. Owing to the circumstances existing at the time, these works shut down in 1896. Recently they have been reopened and productive operations have been initiated. There is in this locality a small mass of intrusive granite, similar to that of the bushveld, and surrounded in a similar manner with a norite margin. In this norite highly inclined galena-bearing fissures occur. These are up to a few feet in width.

Galena also occurs very widely diffused in irregular deposits in the dolomite. Formerly these deposits were only exploited in a very small way to supply some local ore reduction work on the Rand. Recently, however, it has been discovered that some of the deposits, in the outcrop at least, are rich in vanadium.

11. **Mercury.**—Traces of native mercury have been reported from various parts of the country, but most of these are probably due to accidental salting. In the Barberton district, cinnabar occurs in the contact zone between the sedimentary formation, and the granite that is intrusive in it. The quantity of cinnabar in the ore (an altered quartzite)

* This company commenced producing pig-iron smelted from South African ore in June, 1926.

appears almost payable. The claims containing the deposit have been held for years, and a good deal of money spent in developing them, but so far no attempt actually to extract the mercury has been made.

12. **Manganese.***—Manganiferous earth of inferior quality is of frequent occurrence in the Transvaal. Pyrolusite of good grade occurs in the form of veins in the older rocks of the Cape Province, and in the neighbourhood of Pretoria, but the veins are in all cases small and much mixed with gangue. At the present time a few tons per month are being mined at Pretoria for use in the cyanide works of the Rand, but otherwise no commercial attention is being paid to the mineral. In the Krugersdorp district, on the farm Elandsvlei, and on neighbouring farms, there are large lateroidal deposits of high grade pyrolusite from which cobbed ore containing 59 to 63 per cent. Mn O2 can be obtained. These deposits, which occur in areas from which the dolomite has been almost but not quite denuded, appear to be of very considerable extent, and are easily mined. Supplies of this mineral quite equal to any local demand which may spring up, will, therefore, be obtainable at an economic price, but it is doubtful whether it will be possible to develop a profitable export trade.

All the known details with regard to manganese in the Union appear in the article on manganese in the *Journal of Industries* for January, 1919.

13. **Molybdenum.**—This occurs in Natal as molybdenite, disseminated through a horizontal sedimentary sandstone of Karroo age in the neighbourhood of certain igneous intrusions, but its extent is not yet known. It also occurs in the northern Transvaal and in Namaqualand, disseminated through pegmatite veins in the granite and gneiss, also in the tin pipes of the bushveld area.

So far this mineral has not been sought for, nor have occurrences been developed, and it is quite possible that payable deposits may be found if attention is directed to it.

14. **Nickel.**†—The occurrence of nickel has been noted in many parts of the Transvaal bushveld complex, in the Barberton area, in the Cape Province, and also in Natal, but the only three deposits which appear at the present time to have prospects of economic importance are those at Insizwa in the Cape Province, at Vlakfontein No. 902 in the Rustenburg District of the Transvaal, and in the Barberton district. At Insizwa and Vlakfontein the ore occurs as pyrrhotite mixed with calcopyrite and pentlandite, and is apparently formed by a magmatic concentration in the base of large norite sheets.

At Vlakfontein a considerable amount of prospecting has been done, and the results justify further work, but this is unfortunately beyond the means of the present owners, who are attempting to get more capital into the venture.

At Insizwa development is proceeding by means of a long adit calculated to tap the deposit at depth, but this adit has not yet reached its objective.

At Barberton a sedimentary bed has recently been discovered carrying a nickel ore of up to 25 per cent. The bed is up to 3 feet in thickness, and though not yet developed, appears to be permanent in character. The ore appears to occur in the form of an entirely new mineral—a magnetic iron-nickel oxide. Sulphur is absent, and the mineral reduces easily and runs down into a metallic button carrying about 54 per cent. nickel. If the deposits open up well, the mine should prove valuable.

A full description of the occurrences of nickel known in the Union at that date, and of these deposits in particular, appeared in the *Journal of Industries* for November, 1919, while a preliminary report on the Barberton occurrence was published in the same Journal for June, 1920.

15. **Platinum, Etc.**—The occurrence of platinum and the allied group of metals has been noted in some of the igneous rocks of the country, and in the black sands derived from the concentration of the Rand conglomerates in the process of extracting the gold. In the last few years a considerable quantity of osmiridium has come into the market from this latter source. The quantity is likely to increase as the processes by which osmiridium is recovered become adopted on a greater scale.

In 1924, the amount of osmiridium recovered on the Rand was 4,107·481 ounces, valued at £102,886, and in 1925 the recovery was 6,055·260 ounces, of a value of £170,995.

In 1923, platinum was discovered in a brecciated quartz lode near Naboomspruit in the Transvaal; the values, however, were very erratic, and at present this reef is not being worked.

At the end of 1924 platinum-bearing rocks were located in the Bushveld Igneous Complex in the Lydenburg District of the Transvaal. A bed of norite was there found containing from 2 to 5 pennyweights of platinum per ton over a width of 3 feet and upwards.

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* See *Journal of Industries*, January, 1919. † See *Journal of Industries*, November, 1919.

This reef, which dips at 12 degrees to the west, runs roughly north and south, and has been traced from 12 miles north of the little town of Dullstroom to the Olifants River, a distance of roughly 60 miles. This reef, known as the Merensky Reef, is uniform in character, both as regards widths and values. In the same area, small koppies or hillocks are found, composed of an igneous rock known as hortonolite-dunite, three of which have been proved to be very rich in platinum.

In the middle of 1925, the platinum-bearing rocks were located near the town of Potgietersrust in the Transvaal; here several reefs have been proved. The reefs in this area, while of greater width and higher value than the Merensky Reef at Lydenburg, are not so consistent, but are likely to yield much platinum.

Perhaps the most important source of platinum in the volcanic rocks of the Bushveld Complex will be found in the Rustenburg area of the Transvaal. Here the norite reef has been found to extend continuously from 30 miles east of Rustenburg, passing that town and on north to the Crocodile River, a distance of roughly 100 miles. The reef is very consistent, and averages 5 pennyweights of platinum over a width of 4 feet.

While at present only pilot reduction plants are at work, it is not anticipated that the extraction of the platinum will yield any insuperable difficulties.

16. **Silver.**—The winning of silver has been chiefly confined to that contained in the gold bullion, of which it forms about 10 per cent. by weight. A considerable quantity was also extracted at the lead mines near Argent in the Transvaal, the galena of these mines carrying up to 80 ounces of silver to the ton; at the present time these mines are not working.

17. **Thorium.**—Monazite occurs in many places in more than samples around the margin of the Transvaal Bushveld Complex, as do various other rare minerals; but no attention has so far been paid to these, though the monazite is reported to have very distinct radio-active qualities. The mineral is also found along with cassiterite in the alluvial workings of Swaziland.

18. **Titanium.**—Hand samples of almost pure rutile have been obtained from the Barberton district, but as yet no information is public as to its method of occurrence. The titaniferous iron ores of the Transvaal already mentioned contain up to 14 per cent. titanium, and occur in enormous quantities.

19. **Tungsten.**—Specimens of wolframite have been obtained from various localities in the Transvaal, and from the Kuils River tin mine, but no quantity has been discovered. Scheelite occurs in considerable quantities in the Stavoren Tin Mines, and about 50 tons were recovered during the war period. The scheelite occurs quite irregularly mixed with tin and the associated minerals in pipe-like deposits. It may be the predominant mineral or may be entirely absent. It is not likely that any large quantities of this mineral will be obtained, but it is probable that a small output will always accompany that of tin.

A small quantity has been won in the neighbourhood of Leydsdorp.

20. **Vanadium.**—This mineral has been found associated with the lead ores of the Marico district in quite considerable quantities. So far, it is impossible to say much about the prospects of sucessful mining, but it appears certain that there are at least several hundred tons of vanadinite in the old dumps and visible in the surface workings which can be extracted at a good profit. In April and May, 1923, there was a production of 54 tons of concentrates, containing about 7 per cent. of vanadium.

21. **Zinc.**—Zinc, like lead, occurs in irregular deposits throughout the dolomite area of the Transvaal, but, with the exception of one property, no attention has been paid to its occurrence. At Witkop, in the Marico district, a zinc mine was opened.

22. **Radio-Active Minerals.**—So far, pitch blend has not been found in the Union, and, with the particl exception of monazite, no commercial attention has been paid to the rarer radio-active minerals which are found in the neighbourhood of the Swaziland and Transvaal tin fields, and which were described by Dr. A. W. Rogers in a paper read before the Geological Society of South Africa in April, 1915.

23. **Graphite, Corundum, Mica.**—All these exist in the Transvaal and Cape Province and have been worked during the past few years. The output, however, is small and no large export trade has been developed. With improved transport facilities and cheaper working costs it is probable that a considerable industry in these minerals will eventually be created.

§ 7. Diamonds.

1. **Discovery of Diamonds.**—The history of the early diamond discoveries in South Africa was given in some detail in the fourth and previous issues of this *Year Book*, in the course of an article by Messrs. G. E. B. Frood, M.A., M.I.M.M., and T. G. Trevor, A.R.S.M., F.G.S., of which this section is a summary.

The diamondiferous occurrences now known are spread over a large area, but have an apparent tendency to cluster, the chief centres being Barkly West and Kimberley in the Cape Province, Boshof, Koffiefontein, Jagersfontein, Kroonstad, and Theunissen in the Orange Free State, and the Premier Mine in the Transvaal.

Altogether, considerably over 250 occurrences* of Kimberlite (by which general term the rock of the diamond mines is now commonly known) have been located in South Africa, including Rhodesia, South-West Africa, and the Belgian Congo, all of which, however, are confined to the South African plateau, no payable mine having been discovered north of the Premier Mine.

Much the most important development since the original opening up of the mines of the Kimberley group has been the discovery, already alluded to, of the great Premier Mine, which lies about twenty miles east-north-east of Pretoria. The pipe is roughly an oval, 2,900 feet long by 1,500 feet across, giving an area of nearly 80 acres, or 3,570 claims. The enormous surface extension thus represented, as compared with other pipes, will be realized from the consideration that it amounts to only a hundred claims less than that of the three largest mines of the Kimberley group together. Down to the present depth of the working, the walls are practically perpendicular, and have shown no disposition to cave. This mine is at present working a day and a night shift of 48 hours per week each. The number of employees is 410 whites and 3,200 natives. The number of loads washed averages about 11,100 per day and the weight of diamonds recovered per load washed averages one-fifth of a carat.

The mine is so large that at the present rate of working the average depth only increases 8¾ feet a year, and, as the average depth is now only 305 feet, and the walls are massive, it is clear that the present method of working may continue for many years to come.§

2. **Production of Diamonds.**—(i) *Union.*—The table given below gives the annual output and value of diamonds in each Province, from the earliest date for which records are available.

According to official records, the value of the diamond output during this period was £236,238,832. The production of diamonds since the date of discovery, 1870, may, however safely be taken to have amounted in value to over £259,000,000.

OUTPUT OF DIAMONDS IN UNION, 1883 TO 1924.

YEAR	CAPE OF GOOD HOPE.		TRANSVAAL.		ORANGE FREE STATE.		TOTAL.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1883–1901	Carats. 53,748,413	£ 69,771,893	Carats. †35,509	£ †69,861	Carats. No records available at present.	£	Carats. Records in complete.	£
1902...	2,486,327	4,949,808	1,065	2,402				
1903...	2,463,692	4,833,040	174,976	239,752				
1904...	2,514,222	5,191,661	884,331	1,150,873	284,604	866,111	3,683,157	7,208,645
1905...	2,269,450	4,428,383	802,172	922,330	297,167	853,834	3,368,789	6,204,547
1906...	2,742,868	6,992,811	1,069,392	1,563,141	323,976	1,040,691	4,136,236	9,596,643
1907...	2,579,885	6,310,796	2,062,855	2,268,075	528,072	1,407,055	5,170,812	9,985,926
1908...	1,588,511	3,085,352	2,022,688	1,549,815	479,922	771,414	4,091,121	5,406,581
1909...	2,527,297	4,690,478	1,877,486	1,176,680	765,088	1,332,201	5,169,871	7,199,359
1910...	2,586,295	5,267,659	2,090,068	1,416,464	780,195	1,505,074	5,456,558	8,189,197
1911...	2,250,506	5,506,412	1,843,341	1,628,876	798,152	1,611,436	4,891,999	8,746,724
1912...	2,325,549	6,190,966	2,131,406	2,386,979	614,927	1,483,544	5,071,882	10,061,489
1913...	2,461,893	6,995,438	2,156,897	2,726,663	544,757	1,667,706	5,163,547	11,389,807
1914...	1,350,536	3,544,072	1,142,683	1,162,031	307,798	781,091	2,801,017	5,487,194
1915...	66,471	266,198	35,674	128,067	1,241	5,545	103,386	399,810
1916...	1,510,756	4,057,928	615,209	933,643	220,365	736,820	2,346,330	5,728,391
1917...	1,650,897	5,109,928	981,525	1,667,299	269,995	936,583	2,902,417	7,713,810
1918...	1,418,440	4,571,089	896,038	1,717,692	222,882	826,086	2,537,360	7,114,867
1919...	1,494,855	7,605,053	873,961	2,668,854	219,201	1,460,588	2,588,017	11,734,495
1920...	1,364,706	9,463,512	905,297	3,600,310	275,014	1,699,077	2,545,017	14,762,899
1921...	238,470	1,305,221	424,486	1,254,151	143,687	544,076	806,643	3,103,448
1922‡..	137,471	755,433	415,707	1,192,637	116,381	318,561	669,559	2,266,631
1923‡..	1,134,287	3,665,374	680,933	1,736,019	237,874	636,814	2,053,094	6,038,207
1924‡..	1,290,119	4,907,242	851,661	2,161,416	298,618	964,748	2,440,398	8,033,406

* Wagner: "The Diamond Fields of Southern Africa," 1914.

§ Indebtedness is acknowledged to Mr. Gardner Williams' work, "The Diamond Mines of South Africa" (Macmillan, 1902), for various points in the early history of the diamond industry.

† 1894–1901. ‡ Metric carat weight.

(ii) *World Production.*—The following table shows the world production of diamonds for a series of years and indicates the proportion which is contributed by the Union :—

WORLD PRODUCTION OF DIAMONDS, 1919 TO 1924.

Year.	Union of South Africa.		South-West Africa.	Belgian Congo. *	Angola.	British Guiana.	Brazil. †	Other Countries.	Total.
	Production.	Percentage of World Total.							
	Carats.	%	Carats.	Carats.	Carats.	Carats.	Carats.	Carats.	Carats.
1919...	2,588,017	76·36	462,180	211,546	48,504	16,707	59,000	3,337	3,389,291
1920...	2,545,017	70·54	606,424	274,103	93,529	39,363	45,000	4,482	3,607,918
1921...	806,643	54·29	171,321	244,878	106,719	102,604	50,000	3,619	1,485,784
1922...	669,559	47·82	144,156	250,000	97,000	163,641	60,000	15,698	1,400,054
1923...	2,053,094	—	214,474	444,782	94,478	220,162	‡	25,251	—
1924...	2,440,398	—	492,696	670,000		190,501	‡	‡	—

* Exports. † Estimated exports. ‡ Not available.

3. **Geology (Diamonds).**—Kimberlite occurrences, though their distribution is apparently limited geographically, are not confined to any geological horizon, but pierce the rocks of various series. They are found as (1) pipes or necks, (2) dykes or fissures, and (3) blows or enlargements of dykes. In shape they are as a rule quite irregular, but with a tendency to the round or oval in case of the larger pipes. The section at depth also changes considerably, according mainly to the hardness of the successive strata of the enclosing rock, and in some cases there is found to be considerable deflection from the vertical. Comparatively with the areas found at the present surface, there is a general tendency to shrinkage at depth, but there are notable exceptions provided in some of the smaller occurrences. The enormous variation in surface extension is shown in the following table, giving the area in claims of 30 by 30 Cape feet of some of the principal mines.

AREA IN CLAIMS OF PRINCIPAL UNION DIAMOND MINES, 1918.

Mine.	Claims.	Mine.	Claims.
Premier	3,570	Jagersfontein	1,128
Dutoitspan	1,441	Bultfontein	1,067
Koffiefontein	1,428	Crown Diamonds	271
Wesselton	1,162	West End	147

A fuller account of the geology of diamond formations was given in previous issues of this *Year Book* (Nos. 1 to 5), which also contained particulars of the methods of mining and treatment of diamonds.

4. **Economics of Diamond Production.**—As the diamond is almost entirely an article of luxury, and as the mines of South Africa are capable of meeting much more than the demands of the world's markets, it has been found essential to have, instead of internecine competition, an equitable arrangement whereby the mines agree to a joint production sufficient to meet these demands. Periodical agreements have accordingly been entered into between the London Diamond Syndicate and the four chief producers in South Africa, viz. De Beers, South-West Africa, Premier, and Jagersfontein, whereby the syndicate undertakes to buy from them at agreed-upon prices diamonds to a certain total value, which are supplied by each of the four producers in agreed-upon proportions. Of the sales during 1924, amounting to £6,752,499 for the Union and £1,260,500 for South-West Africa, making a total of *£8,012,999, there were sold under these agreements diamonds to the value of *£8,981,000.

* The difference is accounted for by the fact that the Syndicate had a surplus of stones upon which to draw.

South Africa is, however, no longer in the happy position it was some years ago of having practically a world monopoly of the supply of diamonds, as the production of other parts of the world has risen until it is now approaching one-quarter of the total, the principal contributors being :—

	£
Angola	500,000
Belgian Congo	1,500,000
British Guiana	1,350,000
West Africa	250,000
TOTAL	£3,600,000

5. **Prices of Diamonds.**—For the three last full years previous to the war, viz. 1911, 1912, and 1913, the average prices obtained for mine stones, as produced in the Union, were respectively 32s. 9d., 36s. 2d., and 40s. 4d. per metric carat of 200 milligrams. Although the times were not normal, with the establishment of the control referred to above greatly enhanced values were obtained up to the latter end of 1920, the Union average price for mine stones in that year being 103s. 4d. At the end of 1920, however, there was a complete collapse of the diamond market owing to the world wide financial depression, in which the diamond trade suffered in common with other luxury trades, and as a result of persons in necessitous circumstances in Europe placing on the market diamonds they had acquired in more prosperous days. Prices dropped for the next two years, and only in 1923 was there a recovery to an average of 48s. 5d. per metric carat for mine stones in the Union, rising to 54s. 8d. in 1924. The average prices given are lowered considerably by the inclusion of the Transvaal production, which is of comparatively poor quality. Thus, for the year 1920, Cape stones realized 127s. 5d., Orange Free State stones 116s. 8d., and Transvaal stones 59s. 6d. The difference in the price obtained by the respective areas is not so marked, however, as the market gets lower, the average prices realized in 1923 being—Cape, 56s. 4d.; Orange Free State, 51s. 9d.; and Transvaal, 31s. 9d.; and in 1924—66s. 10d.; 63s. 10d.; and 30s. 2d. respectively.

In the case of alluvial stones, which on the average are much more valuable than mine stones of equal weight, prices generally follow the fluctuations of the market for mine stones. In 1913 the average price realized was 105s. 11d. per metric carat, which rose until 1919, when 254s. 9d. was obtained, and receded again with the general slump to 118s. 1d. in 1921, recovering again to an average of 135s. 8d. per metric carat for the year 1923, and to 149s. 7d. in 1924.

6. **Costs of Diamond Mining.**—Early in 1921, owing to the depression in the diamond market, the winning of diamonds by underground mining almost entirely ceased and up to the middle of the year 1924 it had not yet been resumed on a large scale. Consequently there were no working costs for this class of mining available to compare with the 4s. per load ruling before the war. On the other hand, the Premier working in the open on a scale only one-third of that before the war, was doing so at a cost of 3s. 1d. per load as compared with 2s. 6d.

7. **Labour in Diamond Mines.**—To the above results, the excellent management of labour on these mines largely contributes. The white employees are well paid and treated with much consideration, with the result that the mining population has become more settled and contented than is generally the case in large mining areas. The chief feature as regards the employment of natives and coloured persons is the establishment of a compound system, which entails confinement during limited periods of contract in closed compounds out of working hours. This system has been attended by the most satisfactory results, both from the employer's point of view in saving theft and securing the highest physical efficiency, and from that of the employee, in that having been well fed and cared for in the meantime, he is able to return to his home at the end of his engagement with all his earnings practically untouched. In consequence of the latter, aided a little perhaps by the attraction of the rewards paid for finding and delivering up stones, no mines are so popular with the native population, and most of the labour comes in practically free of cost to the companies.

8. **Alluvial Diamonds.**—Starting from Prieska, about eighty miles below the confluence of the Vaal with the Orange River in the Cape Colony, alluvial digging has gradually spread eastward and northward over a large area of the Western Transvaal. Along the Vaal river basin operations have been carried on extensively in the neighbourhood of Christiana, Bloemhof, Wolmaransstad, Klerksdorp, and latterly, between Parys and Vereeniging. From the Vaal, operations were extended up the banks of the smaller rivers, and digging on a large scale was carried out on farms up to and north of Schweizer Reneke.

Recently diamonds have been discovered in the Lichtenburg District between the towns of Lichtenburg and Ventersdorp and digging operations are in active progress there

The digging and prospecting already completed appears to indicate that a larger proportion of the huge area lying in the triangle between Prieska, Lichtenburg, and Vereeniging, carries alluvial gravel, in which patches occur where diamonds are concentrated and with considerable barren or poor intervals. Speaking generally, north of the Vaal River the diamond-bearing gravel lies near the surface and is of comparatively shallow depth. South of that river the gravel is generally found at some depth below the surface. Finally, passing by certain isolated occurrences such as that at Kameelfontein, near the Premier Mine, reference has to be made to a recent revival in interest in the gravels of the Orange River, from which some thousands of carats of diamonds were extracted in the year 1917. Of all these, the diggings of Griqualand West, on the lower Vaal, have all along been the great stand-by of the alluvial digger, in spite of the sometimes dazzling, if generally ephemeral, attractions of other fields. The value of the Griqualand West deposits is much enhanced by the fact that there is here, in addition to the usual surface gravel, a great development of the so-called deep gravels, which are really stiff conglomerates representing ancient river beds. These attain a considerable thickness in places, allow of safe mining by underground methods, and afford generally a more permanent basis for work. It is also here that the deposits contained within the present channel of the river appear most prolific, and admit of most profitable exploitation. In the last complete year before the War, viz., 1913, an average of 4,602 Europeans and 16,194 non-Europeans were employed on alluvial diggings throughout the Union, and were responsible for an output of 211,514 metric carats of diamonds, valued at £1,120,227. This output represented in value nearly 10 per cent. of the whole production of the Union.

The figures for 1924 show that 6,812 Europeans and 23,971 non-Europeans were engaged in alluvial operations. The diamonds found amounted to 287,555 metric carats, valued at £2,150,373, giving an average value per carat of 149s. 7d. The estimated value of alluvial stones in this year was 27 per cent. of the value of the whole diamond production of the Union.

Alluvial diamonds are, as a rule, much superior to the average of the stones recovered from the mines. In the year 1913 the average value of alluvial stones was 105s. 11d. per metric carat, as against 40s. 5d. for mine stones. In 1924 the average price of alluvial stones was 149s. 7d. per carat, as against 54s. 8d. for mine stones.

The problem of the derivation of the river or alluvial diamond is by no means fixed. The stones of every known mine are represented, as no doubt also are those of mines yet undiscovered, but there would in addition appear to be stones derived from other sources, amongst which is the amygdaloidal andesite of the Ventersdorp system.

All diamonds are now subject to export tax, but, apart from this, the only financial obligation required of the digger by Government is payment of his claim licence. In the Transvaal, claims measure 45 feet square, and are subject to a monthly tax of 5s. In the Cape Province the standard claim is 30 feet square, but this has been increased by proclamation to 30 feet by 60 feet as regards Griqualand West. The latter is subject to a licence costing 5s. monthly. In the Orange Free State £1 is charged on the full claim of 90 feet square.

9. **General.**—Koffiefontein having of recent years come under the control of De Beers Consolidated Company, and the small mines of the Boshof district being of comparatively little account, the great producing concerns may be considered as at present consisting only of De Beers Consolidated, the Premier, and Jagersfontein. These corporations have all been eminently successful financially, and in view of their enormous reserves of ground, have long lives in front of them.

The Government of the Union holds a six-tenths interest in the Premier Mine, in terms of the Transvaal *Precious Stones Ordinance*, No. 66 of 1903, but, apart from some small leasehold rents and payment of claim licences, De Beers and Jagersfontein are only subject to taxation in the form of the Profits Taxes applying to all mining concerns, and to the export tax of 10 per cent. required to be paid on all diamonds leaving the country.

Under the *Precious Stones Act*, 1904, of the Orange River Colony, the Government, under certain slight modifications, retains a four-tenths interest in all mines discovered after the promulgation of that Act. In the Cape Province, prospecting and mining are regulated by the *Precious Stones Act*, No. 11 of 1899, and the *Precious Stones Amendment Act*, No. 27 of 1907, of that Province, and in case of a mine being discovered on private land, one-half becomes the property of the Crown. In the Transvaal, under the ordinance referred to above, the Government takes the same interest in all future diamond mines as has been stated with regard to the Premier Mine. In all three Provinces prospecting is permitted in terms of the above Acts on liberal terms.

10. **Diamond Cutting.**—Two small diamond cutting and polishing factories were started in Johannesburg in 1909.

In 1917 there was imposed an export duty of 5 per cent. on rough diamonds, but it had no perceptible effect in encouraging the industry, and in 1919 there were still only two actories—one in Johannesburg and one in Pretoria. In 1919 the export tax was raised

to 10 per cent. and, in addition, an Act was passed making provision for the establishment, carrying on, regulation, and control of a diamond-cutting industry in the Union, and for ensuring a supply of rough or uncut diamonds to persons engaged therein. The local cutter thus secures the advantage of the 10 per cent. export duty plus the cost of selling rough stones in Europe, or altogether about 12½ per cent. of the value of the rough diamonds. Since the passing of the 1919 Act twelve licences have been granted to diamond-cutters, of which four are still in force and being exercised at two factories in Johannesburg, at one in Pretoria, and at one in Kimberley, which between them during 1924 employed twenty-two whites and purchased or otherwise obtained rough diamonds to the value of £26,589 and sold or otherwise disposed of polished diamonds to the value of £41,415.

§ 8. Gem Stones other than Diamonds.

1. **Garnets.**—Garnets of very good quality, and several varieties of spinel occur in the Zoutpansberg district of the Transvaal, but so far these have not been exploited.

2. **Verdite.**—A variety of serpentine which has obtained the local name of verdite, has been worked in the Barberton district of the Transvaal. This is an extremely beautiful stone of a green colour, suitable for all manner of small ornaments, clock-cases, etc., but too soft for architectural purposes.

3. **Crocidolite.**—In South Africa, this term has been commonly applied to the "chatoyant" hard variety of the mineral used in jewellery, and for ornamental purposes, and also known as "tiger's eye" and "cat's eye." The distribution of the valuable species is comparatively limited, little being found away from the farm of Naauwpoort in the Hay District of the Cape Province. Enough is available there, however, to supply the world's requirements for an indefinite time.

4. **Jade.***—The so-called South African "jade" is found in the Transvaal, between Pretoria and Rustenburg. It possesses all the qualities of a semi-precious stone, and has been found well suited for the manufacture of articles of stone jewellery. The commonest colour is green, not much different from that of true jade, but pink and other lighter shades are also found. The mineral occurs under conditions and in quantities which are encouraging.

§ 9. Coal.

1. **Coal.**—The discovery of coal in South Africa had very far-reaching effects upon the trade and prosperity of the country. There are no old records as to the extraction of this mineral, but it is probable that both natives and colonists won a little from the outcrop seams some years before any of the coal beds were put to commercial use. In 1878 Dunn and North reported upon the existence of workable coal in the Stormberg beds of Cape Colony, and at Indwe, Molteno, and other localities seams of second-rate coal have been mined for many years.

In the Transvaal coal was first opened up near Boksburg in 1887, and the finding of this mineral in close proximity to the Witwatersrand gold fields was of the greatest importance, as the high plateau in which the gold-bearing beds were discovered was practically destitute of timber, and there was no railway communication to the coast or to other coal fields. Following upon the discovery at Boksburg, large seams of good coal were opened up in the Middelburg district, and with good railway communication to Johannesburg, the Middelburg collieries now supply the bulk of the coal used by the mines and other industries.

Natal, speaking generally, produces the best coal in the Union, and does a large shipping trade. The seams, however, are smaller and deeper than those of the Transvaal; gas and dust exist in some pits, and working costs are higher than in the other Provinces. It is probable that the large bodies of anthracitic coal which exist in Natal will also be worked in the future, and that some of the poorer seams now discarded will be utilized for the extraction of by-products.

South Africa has made its name through the production of gold and diamonds, but it is mainly due to the existence of cheap coal that the large output of gold and diamonds has been made possible. On the Witwatersrand proper only a few mines would be working at the present time if a plentiful supply of cheap steam coal was not available.

2. **Production of Coal in Union.**—The following statement shows, in respect of the Union and each Province, the annual output of coal from the earliest date for which complete records are available and the value of the annual output:—

* From a memoir by Dr. A. L. Hall, published in the Transactions of the Geological Society of South Africa, Vol. XXVII, 1924.

ANNUAL OUTPUT OF COAL, VALUE, AND VALUE PER TON, FROM 1885.

Year.	Quantity.					Value.	Average Value per Ton.
	Cape.	Natal.	Transvaal.	Orange Free State.	Union.	Union.	Union.
	Tons.	Tons.	Tons.	Tons.	Tons.	£	s. d.
1885–89 (av.)	23,314	28,682*	—	No records			
1890–94 „	46,219	130,461	669,946†	available	Records	Records	Records
1895–99 „	143,986	299,417	1,562,813	at present.	incomplete.	incomplete.	incomplete.
1900–04 „	193,993	666,444	1,511,252	129,911‡	3,673,023‡	1,561,139‡	8 6‡
1905–09 „	135,435	1,647,412	3,003,795	417,897	5,204,539	1,667,480	6 5
1910–14 „	76,576	2,696,256	4,690,442	557,420	8,020,694	2,060,221	5 2
1915.....	46,850	2,304,116	5,202,805	727,553	8,281,324	2,142,479	5 2
1916.....	41,752	3,066,261	6,136,913	762,576	10,007,502	2,739,665	5 6
1917.....	8,300	2,890,296	6,641,229	843,095	10,382,920	3,275,608	6 4
1918.....	4,654	2,607,133	6,438,961	826,577	9,877,325	3,224,597	6 6
1919.....	4,759	2,801,004	6,622,313	838,059	10,266,135	3,416,244	6 8
1920.....	5,700	3,321,606	7,180,124	966,034	11,473,464	4,519,665	7 11
1921.....	5,778	3,525,989	6,947,362	917,776	11,396,905	5,072,401	8 11
1922.....	6,813	3,618,093	5,380,294	729,113	9,734,313	3,395,176	7 0
1923.....	6,359	4,302,892	6,742,289	865,496	11,917,036	3,713,706	6 3
1924.....	5,329	4,713,291	6,790,689	982,596	12,491,905	3,824,746	6 1

* For year 1889 only. † Average for years 1893 and 1894. ‡ For year 1904 only.

3. **Geology and Occurrences.**—The coal fields of South Africa have not yet been geologically surveyed. It was formerly considered that all the coal measures belonged to the Stormberg Series, but recent investigation tends to the conclusion that there are two horizons, the one of Stormberg age, the other in the older Ecca Series.

A general comprehensive report on the coal resources of the Union is now being prepared by the Geological Survey. In the meantime Memoir No. 3 of the Geological Survey—"The Geology of the Transvaal Coal Measures," by E. T. Mellor—gives a detailed account of the Witbank fields.

(i) *Coal Resources of the Union.*—The following extract from "The Coal Resources of the World" (p. 415) adequately describes the existing knowledge of the Union coal fields :—

> The state of our knowledge regarding the various coal fields of South Africa is so meagre that anything like an accurate estimate of total quantity of coal available is quite impossible. The various coal-bearing areas have not been accurately mapped, and it is not known whether or not the coal in these presumably coal-bearing areas is of economic importance.
>
> The reason for this lack of knowledge is not far to seek. The exploitation of coal is of comparatively recent growth, not extending further back than one generation, and even at present the annual output of coal is only about 10,000,000 tons, an amount which is insignificant compared to the total resources of the country. Coal is, therefore, comparatively speaking, a drug in the market, and the competition is so keen amongst various producers, that the pit's mouth price, in the Transvaal, of about 5s. per ton, is as low as it is anywhere in the world.

(ii) *Cape of Good Hope.*—The workable occurrences are confined to the Molteno beds of the Stormberg Series and are found at three well-defined horizons, known as the Indwe, Guba, and Molteno seams. Practically the whole output, however, has been obtained hitherto from the first and third of these. Generally, the coal occurs in comparatively small layers, much interlaminated with shale, with the consequence that a great deal of sorting has been necessary, and working expenses have been high. It has at the same time a high ash and low volatile content, resulting in a low calorific value, placing it out of competition, except for purely local purposes, with the higher grade coals that are now available. Such as they are, these coals have played a useful part in the development of the country and have been used in the past to great advantage, especially by the De Beers Company and the railways. Gradually, however, they have been forced out of the market and there are now only two or three small companies continuing operations.

(iii) *Natal.*—The collieries are situated in the districts of Klip River, Newcastle, Utrecht, and Vryheid. Altogether there are 31 producing collieries in Natal, and the number is steadily being added to.

The area of the coal field from which coal is now being raised is roughly 2,000 square miles, although probably only 50 per cent. of this area is coal-bearing. Until much additional boring has been done it is impossible to estimate with any attempt at accuracy the area and coal contents of this field. Taking Hatting Spruit as the centre of this coal field, the distance by rail to Durban, to which the bulk of the output goes, is 240 miles.

A colliery was started and worked at Somkele, in Zululand, some 20 miles from the coast, but the coal was too anthracitic and dirty to enable the colliery to continue working with success. Much coal exists in Zululand, but owing to the distance from railways, and the

uncivilized state of the country in the known coal fields of Zululand, very little prospecting has taken place. The Zululand coal field is therefore an unknown quantity, which may however, become of the utmost importance as that country develops and additional railways are constructed therein.

The Natal coal is of excellent quality. The following are analyses of typical Natal coals :—

ANALYSES OF NATAL COALS.*

Name of Colliery.	Moisture.	Volatile Matter.	Fixed Carbon.	Ash.	Calorific Value as per Mahler Bomb Process.	Sulphur.
Dundee Coal Co. (Burnside)..	0·56	23·74	68·40	7·30	15·05	1·48
Natal Navigation.....	0·90	21·78	69·91	7·41	14 to 15·15	1·30
Durban Navigation.....	1·40	30·40	58·50	9·70	13·80	0·94
Northern Navigation.....	2·00	25·30	64·50	8·20	14 to 14·50	0·83
Hlobane.....	1·50	19·30	68·30	10·90	13·84	0·96
Enyati.....	1·70	22·20	67·80	8·30	14·40	0·84
Tendega.....	1·20	21·70	69·10	8·00	14·23	0·75
Wallsend.....	1·25	20·75	66·60	11·40	13·84	—

* Report of Coal Commission, 1921.

One colliery (Dewar's Anthracite) supplies nothing but anthracite, which is found very suitable for suction gas-engines, etc.

(iv) *Transvaal.*—Coal in the Transvaal is known in four geographical districts :—

(*a*) *The High Veld.*—This is in the section made by the Natal–Johannesburg railway in the west, by the Delagoa Bay–Johannesburg railway in the north, and a line drawn south from the Belfast to the Natal boundary at Paulpietersburg on the east. This is the only area on which coal is at present mined, with the exception of the small area at Vereeniging on the south side of the Orange Free State boundary where the measures detached from the Main High Veld area nevertheless belong to it. This area is probably not less than 9,000 square miles in extent.

(*b*) *The Bushveld Area.*—This is an area beginning some thirty miles north of Pretoria. Coal measures, which have in various places been proved to overlie coal, occur over an oval-shaped area some seventy by twenty miles in diameter. Coal seams of considerable thickness have been struck in boreholes and in one shaft. The coal where struck appears of an inferior quality, but would be a useful fuel if a calorific value of ten were accepted. This area is about 750 square miles in extent.

(*c*) *The Lebombo Area.*—This contains a strip of coal measures which outcrops over a width of some six miles along the whole eastern boundary of the Transvaal and Swaziland, some twenty miles west of, and parallel to, the Portuguese border. This coal has not yet been worked, but where opened it appears of good average South African quality, but anthracitic in character, and much disturbed by the neighbouring igneous mass of the Lebombo Hills.

(*d*) *The Limpopo Area.*—Coal measures occur over a very considerable area in the northern Transvaal, stretching from the Lebombo westwards along the Limpopo Valley. The coal in these measures is only opened in one place, Liliput, where the Messina Copper Company worked a small pit for fuel for their smelter. The seam worked is 3 feet wide and is rather inferior, the selected coal having probably a calorific value of not more than 10·5. Neither the Lebombo nor the Limpopo areas are sufficiently well known to attempt an estimate of their size, but 2,000 square miles would probably be a conservative estimate.

(*e*) *The North Waterberg Area.*—This is an extension of the Limpopo area. In the country lying between the Matlabas River on the west and the Palala on the east, coal has recently been struck in boreholes which were being sunk in connection with a search for water. A core drill was sunk in 1921 to prove these measures on the farm Grootgeluk No. 1360. From the surface down to 140 feet eight coal seams were encountered. Of these the following were of workable dimensions :—

Seam.	Depth.	Thickness.
B.	45 feet.	5 feet 6 inches.
C.	57 feet.	7 feet 0 inches.
D.	75 feet.	10 feet 1 inch.
F.	134 feet.	6 feet 8 inches.

From 134 feet to 302 feet no definite coal seam was encountered, but at that depth seam " G " of 22 feet was proved and at 136 feet seam " H " of 13 feet. The borehole was continued to 500 feet, but no further coal was found.

The analyses of these coals, which are in the possession of the Mines Department, show that the lower seams are of the ordinary South African quality and quite up to the usual standard. The upper seams, however, are extremely bituminous and of a very much better coking quality than any yet encountered in the country.

The area underlain by coal in the Transvaal appears to be about 60 miles from east to west, and 30 miles from north to south, but stretches an unknown distance into Bechuanaland in the neighbourhood of Palla Road Station on the Rhodesian railway.

The following analyses may be taken as representative of Transvaal coals :—

ANALYSES OF TRANSVAAL COALS.*

Name of Colliery.	Moisture.	Volatile Matter.	Fixed Carbon.	Ash.	Calorific Value as per Mahler Bomb Process.	Sulphur.
Apex	5·28	17·27	50·09	27·36	9·03	1·14
Bellevue	3·75	31·47	52·46	12·32	12·34	1·50
Breyten	2·75	30·42	50·87	15·96	12·03	1·00
Largo	4·50	24·50	52·00	17·50	10·50	1·50
Middelburg Steam	0·94	24·46	60·63	12·62	13·06	1·35
Oogies	3·20	26·96	56·34	13·50	12·57	1·54
Transvaal and Delagoa Bay	1·38	22·38	59·40	15·58	12·56	1·26
Witbank	0·94	27·04	56·96	13·82	13·01	1·24

* Report of Coal Commission, 1921.

(v) *Orange Free State.*—The chief producers are the Cornelia Colliery on the Vaal River opposite Vereeniging, and the Clydesdale, about fifteen miles to the south, but there are also two small pits working at Vierfontein, about eighty miles to the south-west, on the Klerksdorp–Kroonstad railway line. The Orange Free State field is of great extent, but no serious attempt appears to have yet been made to delimit the probable area. So far, also, not more than one workable seam has been discovered at any point. The average width of the coal worked is much the same in the different collieries and may be taken at about 7 feet 6 inches. The coal is only of second grade quality, the average evaporative efficiency of the present output (1 lb. of water per lb. of coal as ascertained by Mahler bomb) being about 10·65. At the same time, it is otherwise a useful steam coal, whilst for household purposes it is generally preferred to any other.

4. **Methods of Mining.**—The methods of mining followed in the Natal, Transvaal, and Orange Free State coal mines were briefly described in previous issues of this *Year Book* (Nos. 1 to 4).

5. **Coke, By-Products, Tar, Etc.**—(i) *Coke.*—The manufacture of coke is at present confined to the Province of Natal, which supplies all the coke used in South Africa, and also exports a considerable quantity.

In 1924 the output of coke was 74,101 tons, valued at £90,537.

Natal coke is of excellent quality especially for foundry work, being very dense and hard. Analyses of a typical Natal coke taken over a period of two years gave the following results : Fixed carbon from 88·60 per cent. to 89·40 per cent ; ash from 10·4 per cent. to 9·80 per cent. ; sulphur, 0·60 per cent. to 0·50 per cent. ; calorific power, 13·12 per cent.

(ii) *By-Products.*—The Dundee Coal Company is producing the following by-products at its Waschbank Factory, Natal : tar, sulphate of ammonia, light creosote oil, naphtha salts, and solvent naphtha.

The South African Carbide and By-Products Co., Ltd., is producing calcium carbide at the Ballengeich Colliery, Natal. The Natal Ammonium Company, near Vryheid, which was the first colliery to produce by-products, has a large plant for the production of sulphate of ammonium.

(iii) *Tar.*—During 1924 the Dundee Coal Company in Natal sold 186,171 gallons for £9,180.

6. **Employment and Accidents in Coal Mining.**—The number of persons employed in coal mining in each of the Provinces during the year 1924 is shown below. The table also shows the number of persons killed and injured, with proportion killed per thousand employed :—

EMPLOYEES AND ACCIDENTS—COAL MINES, 1924.

Province.	Persons Employed in Coal Mining.		Accidents.		Death-Rate from Accidents per 1,000 Employed.
	European.	Other.	Persons Killed.	Persons Injured.	
Cape of Good Hope....	8	79	—	—	—
Natal.....	818	18,301	53	282	2·77
Transvaal.....	780	14,312	24	93	1·59
Orange Free State.....	130	2,413	8	22	3·15
UNION.....	1,736	35,105	85	397	2·31

7. **Labour in Union Collieries.**—In the collieries, the white miner is in the position of a supervisor, having usually from 50 to 100 natives employed under him. He does little manual work, beyond conducting blasting operations and examining the places before the natives enter and start work.

Natives (the aboriginal inhabitants of South Africa) do all the harder work, such as hewing the coal, filling, and tramming. In Natal, Indians are largely employed, and are efficient in supervising stationary engines, running coal-cutters, erecting timber underground, pipe and track laying, etc.

8. **Wages (Coal Mines).**—White miners' wages vary from 20s. 6d. to 24s. a day. The hours of labour were reduced progressively to 54 and then to 51 per week as from 1st July, 1920. In the Witbank district the hours were reduced to 48 per week. Natives draw from 40s. to 60s. a month, with free quarters, rations, and medical attendance. Indians' wages are the same as natives, but the Indian, as a rule, remains longer at the collieries, and gets more proficient. He, therefore, in some cases receives a higher remuneration.

The following statement shows the wages earned on the collieries in 1924 :—

WAGES PAID IN COLLIERIES OF UNION, 1924.

Province.	European.	Asiatic.		Native and Other.	
		Males.	Females.	Males.	Females.
	£	£	£	£	£
Cape of Good Hope.....	713	—	—	2,065	82
Natal.....	327,137	65,538	17	434,860	57
Transvaal.....	314,328	289	—	407,106	137
Orange Free State.....	48,038	—	—	69,177	—
UNION.....£	690,216	65,827	17	913,208	276

9. Capital (Coal Mines).—The subjoined statement shows the capital invested in collieries in the Union and the dividends arising therefrom in 1924 :—

COAL MINES—CAPITAL, 1924.

PROVINCE.	CAPITAL.			DEBENTURES.		DIVIDENDS DECLARED.
	Nominal.	Reserve Uncalled and Unpaid.	Net Issued.	Total Issued.	Net Amount Outstanding.	
	£	£	£	£	£	£
Cape of Good Hope.	27,000	3,500	23,500	—	—	—
*Natal	4,552,550	491,313	4,061,237	634,910	246,440	228,547
Transvaal	5,195,809	508,441	4,687,368	475,121	275,045	357,933
†Orange Free State	1,544,350	57,925	1,486,425	700,000	350,000	57,955
UNION.....£	11,319,709	1,061,179	10,258,530	1,810,031	871,485	644,435

* Includes a company whose capital is largely employed in business other than coal mining.
† Includes a company whose capital is largely invested in estate property.

10. International Comparison of Production.—Compared with the enormous coal production of such countries as the United States of America, the United Kingdom, and Germany, the coal output of the Union is small. The following table gives the production in tons of 2,000 lb. of some of the chief coal-producing countries of the world, during a series of years :—

OUTPUT OF COAL IN VARIOUS COUNTRIES, 1915 TO 1924.

YEAR.	United Kingdom.	India.	Canada.	Australia.	U.S.A.	Germany.	France.	Belgium.	Japan.	UNION.
	Tons 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.	Tons. 1,000.
1915..	283,591	19,156	13,267	12,785	531,619	247,044	22,306	15,638	22,591	8,281
1916..	287,140	19,325	14,483	10,989	590,098	268,407	23,682	18,588	25,249	10,008
1917..	278,320	20,398	14,047	11,465	651,402	274,377	31,898	16,458	29,063	10,383
1918..	255,079	23,209	14,978	12,263	651,697	273,649	27,492	15,241	30,889	9,877
1919..	257,354	25,343	13,681	11,835	544,507	223,137	24,727	20,387	33,970	10,266
1920..	257,076	20,118	16,624	14,524	556,516	251,282	21,863	22,413	32,237	11,473
1921..	182,010	21,507	15,057	12,867	503,843	296,314§	31,923	24,036	25,631	11,397
1922..	281,664	21,292	15,045	13,775	457,093	306,896§	35,209	23,409	27,164	9,734
1923..	311,922	20,944	17,132	14,150	640,836	208,282§	42,524	25,261	30,865	11,917
1924..	299,172	22,617	13,617	13,098	573,283	267,994§	65,004	25,742	33,600	12,492

§ Including the Ruhr.

11. Union Coal Trade and Coal Consumption.—Being such a long distance from any of the important coal fields of the world, the South African coal deposits are of the utmost value, not only to the Union but to Africa generally, and to the large numbers of ships which now call and coal at Union ports. South Africa is anything but a well-wooded country, and if no coal had been available in the Union itself, it is improbable that the gold and diamond mines, which have so largely contributed to the development of the country, could have been successfully carried on. New industries are being started in the Union, all of which will benefit largely by cheap fuel, and as water power is not available, the country would be unlikely to secure industrial prosperity were it not that it has an ample supply of the cheapest coal in the world.

The chief present consumers of coal are the mines, the Government railways, and the ships which coal at Union ports.

There is every reason to anticipate a bright future for the coal industry. The Union is only in an early stage of development. With the increase of railway communication, and the opening up of the numerous industries for which South Africa has the means and facilities, a large demand for coal must follow. As the Union develops, the amount of shipping coming to the country will increase, and such shipping will coal at Union ports. The export of coal from the Union increased during the War, and such countries as the Argentine Republic, Mauritius, and Madagascar are likely to require steadily increasing quantities of Union coal.

It is as yet too early to estimate the ultimate dimensions of the coal by-product industry. It is unlikely that such countries as the South American Republics, Madagascar, and Mauritius will go to Europe and the United States of America for coal by-products if they can obtain them at less cost in South Africa.

For many years to come South Africa should be able to supply coal at a cheap rate; while wages are likely to increase in older countries, the native of South Africa will probably remain content to work for far less than a European. This fact, taken together with the favourable geographical situation of the Union, enables the country to compete on advantageous terms with the other coal-producing countries of the world.

The following table shows the quantity of coal imported into, exported from, and consumed in the Union during a period of years :—

COAL—UNION IMPORTS, EXPORTS, AND CONSUMPTION, 1911 TO 1924.

Year.	Consumption of Coal.			Coal Imported.	Coal Exported.	Coal Bunkered.†
	Total.	Railway.*	Mines.			
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1911	6,139,481	1,463,226	2,608,643	68,035	82,586	1,440,912
1912	6,598,981	1,671,528	2,472,308	75,116	166,983	1,426,230
1913	6,546,601	1,895,349	2,535,451	57,709	856,397	1,455,927
1914	6,544,181	1,928,828	2,108,397	77,266	651,211	1,359,797
1915	6,497,716	1,875,377	2,241,131	28,495	506,551	1,305,552
1916	7,291,080	2,304,966	2,507,389	13,689	565,663	2,164,448
1917	7,510,366	2,381,554	2,537,022	15,003	539,473	2,348,084
1918	7,386,546	2,271,970	2,471,222	10,070	1,210,697	1,290,152
1919	7,748,958	2,470,104	2,516,104	10,158	1,093,842	1,433,493
1920	8,322,218	2,745,681	2,338,849	7,741	1,301,272	1,857,715
1921	7,974,993	2,432,427	2,098,500	16,085	1,795,093	1,642,904
1922	6,833,954	2,258,409	1,672,088	13,592	1,477,657	1,436,294
1923	8,208,971	2,147,042	2,149,986	11,627	1,903,717	1,815,975
1924	8,759,150	2,518,854	2,206,406	12,919	1,925,038	1,820,636

* Steam coal only. † Shipped in vessels cleared overseas only.

12. **Price of Coal.**—The price of coal varies very much in the different Provinces. The reason for this difference in prices is largely due to the situation of the collieries. Thus, the Cape Province coal, which is the most inferior in the Union, fetches the highest price, because coal from the other Provinces has to be transported by rail to the Cape Province, thus enabling the local coal to maintain its high price.

Natal coal is the best in the Union, and the up-to-date Port of Durban being now a large coaling station, the considerable bunker and export trade done at this port, and the high quality of the coal supplied, enables the Natal collieries to command comparatively high prices for their output.

There has been no great fluctuation in prices in recent years, except in Natal. The Transvaal and Orange Free State coal is mostly consumed in those Provinces, and as the demand is no greater than the supply, there has been little opportunity for prices to increase. In Natal it is different. Much coal is consumed by passing ships, willing to pay good prices for it, and this, coupled with the rise in the price of coal in the United Kingdom, has tended to raise the price of coal in Natal. From the following table it will be seen that while the price at the pit's mouth has remained almost stationary in the Transvaal, Cape, and Orange Free State Provinces, there has been a rise in the price of Natal coal up to 1921, but a setback in subsequent years.

AVERAGE PRICES OF COAL (PIT'S MOUTH), UNION, 1911 TO 1924.

Period.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	Per ton.*	Per ton.*	Per ton.*	Per ton.*
1911	11s. 6·98d.	5s. 4·98d.	4s. 8·39d.	5s. 8·42d.
1912	11s. 0·55d.	5s. 6·99d.	4s. 4·78d.	5s. 4·57d.
1913	11s. 5·82d.	6s. 1·83d.	4s. 4·48d.	5s. 5·87d.
1914	11s. 7·50d.	6s. 10·80d.	4s. 5·55d.	5s. 5·58d.
1915	11s. 4·22d.	6s. 9·50d.	4s. 4·82d.	5s. 2·14d.
1916	11s. 6·49d.	7s. 4·77d.	4s. 6·07d.	5s. 2·54d.
1917	14s. 4·05d.	10s. 1·76d.	4s. 9·32d.	5s. 1·86d.
1918	15s. 3·89d.	10s. 5·10d.	5s. 0·84d.	5s. 6·70d.
1919	15s. 9·12d.	10s. 7·41d.	5s. 1·40d.	5s. 6·25d.
1920	15s. 5·22d.	12s. 3·40d.	6s. 1·12d.	5s. 11·43d.
1921	15s. 7·91d.	14s. 1·71d.	6s. 7·32d.	6s. 0·82d.
1922	15s. 2·86d.	9s. 2·80d.	5s. 7·34d.	5s. 9·12d.
1923	14s. 5·76d.	7s. 10·70d.	5s. 3·04d.	5s. 6·61d.
1924	14s. 2·37d.	7s. 8·89d.	5s. 0·90d.	5s. 6·79d.

* 2,000 lb.

13. **International Comparison of Prices.**—Apart from the price of Cape coal, which is relatively high on account of the scarcity of coal in that Province, the price of coal in the Union compares very favourably with the prices in other parts of the world.

The average pit's mouth price in the United Kingdom in 1922 was approximately 19s. 2d.

The following table provides a comparison of the retail prices of coal in the Union and various other countries :—

INTERNATIONAL COMPARISON OF THE RETAIL PRICE OF COAL, 1918–25.

Year.	South Africa.	Canada.		Australia.	New Zealand.	United Kingdom.
		Anthracite.	Bituminous.			
	Per 100 lb.	Per 100 lb.	Per 100 lb.	Per 100 lb.	Per 100 lb.	Per 100 lb.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1918	1 5·90	2 5·54	1 11·05	*1 4·52	2 2·87	—
1919	1 5·10	2 7·67	2 0·61	1 7·15	2 5·60	—
1920	1 9·15	3 6·00	2 6·52	1 10·95	3 0·19	—
1921	1 11·44	3 8·81	2 7·33	1 10·95	3 4·47	—
1922	1 8·80	3 7·66	2 4·19	1 11·35	3 2·54	—
1923	1 8·06	3 8·34	2 4·48	‖	3 1·11	2 0·18
1924	1 8·01	3 6·03	2 2·39	‖	3 0·46	2 1·8
1925	†1 8·13	§3 5·18	§2 1·44	‖	§3 0·16	‡2 1·37

* 30 per cent. increase over 1914 price, 24s. 6d. per ton of 2,240 lb.
† Average of seven months.
‡ Average of six months.
§ Average of five months.
‖ Not available.

14. **Coal Commission and Coal Act.**—The Coal Commission was appointed in 1920 to report upon the measures required for :—

(*a*) The effective grading and pooling of South African coal intended for export and for bunkering.
(*b*) The equitable distribution of the cost amongst the participating collieries ; and
(*c*) The discouragement of the export of low grade coal.

The Commission was also required to report upon the necessity of safeguarding the supply of coal for local consumption, and for the use of Railways and Harbours and other public services.

The Report was issued in May, 1921, and was summarized in *Official Year Book* No. 4.

The *Coal Act*, No. 27 of 1922, which came into effect on the 1st September, 1922, followed the lines of the Coal Commission's report. Its main provisions may be thus summarized :—

(i) No coal produced within the Union is to be used for export or bunkering unless it has been graded and a certificate in the prescribed form has been granted in respect thereof.
(ii) A committee to control the grading of coal may be appointed, consisting of a chairman, nominated by the Minister, and four members, either all nominated by the collieries or two nominated by the collieries and two by the Minister. Members and officers of the grading committee may enter any colliery or place where there is coal at any time. Reasonable assistance in the work of grading and inspecting must be given by the officers and servants of the colliery or place concerned with the bunkering and export of coal.
(iii) A monetary levy is to be made on the collieries by the grading committee at the commencement of its operations, this levy to be based upon the tonnage shipped by the several collieries during the preceding six months. Every quarter afterwards the amount levied is fixed in proportion to the amount of coal supplied during the preceding quarter by each of them for export and bunkering.
(iv) Export and bunkering of coal may be restricted or prohibited by the Minister if there is any real or apprehended scarcity.

Provision is also made for the requisition of coal by the South African Railways and Harbours Administration in times of scarcity of available coal, and for the issuing of regulations. Penalties for the contravention of the Act are laid down.

15. **Grading of Coal.**—*Coal Grading Committees* for Natal and the Transvaal, each consisting of a chairman and four members, were appointed by the Minister. These Committees started work towards the close of 1922 and drafted regulations which were published in the *Government Gazette* of the 5th December, 1922, under Government Notice No. 1965. The collieries wishing to export coal in these two Provinces of the Union were sampled and the calorific value of the product was in each case decided. Standards were next fixed, the following being adopted :—

NATAL.—First grade.—13·5 with a permitted variation of 2 per cent., thus making the lowest first grade to pass a standard of 13·25 calorific value.
All below this was graded second class.
If the ash of any coal fused below 1300° C, a note to this effect was inserted in the grading certificate.

TRANSVAAL.—Witbank A.—12·75 or above.
„ B.—Below 12·75 but 12·25 or over.
Ermelo A.—12·00 or above.
„ B.—Below 12·00 but 11·5 or over.

Experimental work in connection with fusibility of ash and absorption of oxygen is proceeding in the Transvaal.

§ 10. Non-Metallic Minerals, other than Coal.*

1. General.—The remarks in Section 6 as to the lack of interest taken until recent years in the occurrence of any other minerals but diamonds and gold, applies with even more force to the non-metallic minerals. Up to ten years ago, asbestos, common salt, and lime were practically the only non-metallic minerals the existence of which was noted. The present position, however, is improving, and is as follows :—

(i) *Asbestos.*†—Asbestiform crocidolite, commonly known as *blue asbestos*, has been worked in the Cape Province for over twenty years, having been first brought upon the market by the Cape Asbestos Company, which was formed for the purpose in 1893. For many years this company continued to be the only channel for production, and operations were largely confined to its mines in the Prieska and Hay Districts. More recently, a large number of independent producers have entered the field, and the fibre now reaches the market from various sources.

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* By T. G. Trevor, A.R.S.M., F.G.S., Inspector of Mines, Pretoria.
† See Memoir No. 12, G.S., "Asbestos in the Union of South Africa," and also *Journal of Industries*, November, 1918.

Blue asbestos is found in the lower Griquatown beds, which, so far as regards the exposures of the parent rock, may be taken as identical with the range of hills known as the Asbestos Mountains, and the continuation north of these in the Kuruman-Honingvlei range. The mineral has been found from the border of the Bechuanaland Protectorate to thirty miles south of Prieska; and it is believed that its extension over this distance of more than 300 miles is practically continuous. The lateral range of the asbestos-bearing rocks varies from four to upwards of twenty miles. Only small portions of this enormous area are being exploited in the meantime; but with the further opening up of the country, and improvement in facilities, an indefinitely large expansion in the production must inevitably result.

The Cape Asbestos Company has two large mines developed on normal lines, and a few other companies are also starting to mine by underground methods. Generally, however, the recovery is effected by surface quarrying. The distribution of the asbestos, both as regards the number of seams found from point to point and the length of the fibre, has been found to be very irregular, but in the general case no serious cause has been found for apprehension that the recovery will cease to be payable when underground methods have to be resorted to.

Beyond rough cleaning and classification, no preparation of the fibre is yet attempted previous to shipment to the European markets. Over some portion of the asbestos area, a proportion of the material mined is found to be rusty or discoloured. The former is rejected altogether, but the latter, after the usual classification, is accepted on the market at a reduced price.

Owing to differences in classification and other circumstances it is scarcely possible to form a reliable estimate of the length of the fibre being produced, but it is believed that nearly 25 per cent. of the whole production is of the length of 1 in. or over. It is equally difficult to arrive at an estimate of the asbestos yielded per ton of rock mined, but the proportion certainly exceeds that of most of the other producing fields of the world.

The crocidolite variety of asbestos differs greatly from the white or chrysotile in respect of its relatively high iron and low magnesia and water content, and naturally essential differences in its commercial qualities are disclosed. The greater resistance offered by the white variety to very high temperature is unquestioned, as also is its greater softness, making its milling and reduction much easier than in the other case. On the other hand, the crocidolite, amongst other virtues peculiarly its own, is credited with higher efficiency as an insulating material, both as regards heat and electricity, and with being unaffected by ordinary acids, chemical solutions, and, in particular, by sea water. The fibre is also lighter, and is claimed to be at the same time stronger, finer, and more elastic. It is mainly upon how far these qualities that are claimed for blue asbestos approve themselves in the world's markets that the future of the industry in South Africa is dependent.

In the North Lydenburg District of the Transvaal, and stretching into the southern portion of the Pietersburg District, asbestos occurs over a large area in the form of interbedded veins in a highly ferruginous metamorphous shale in the lower Pretoria Series, which is considered to be geologically identical with the Griquatown formation of the Cape Province. The extension of the mineral is very considerable, as it has been found to occur over an outcrop length of about sixty miles. Difficulty was at first experienced in getting the market to accept this variety of asbestos, but it has now been taken up both in America and Europe.

The main mine at Penge has now been opened for some 2,500 yards along the outcrop and 400 ft. in depth. The average section of asbestos in this area is certainly 9 in., and the quality appears to improve with depth. Nearly 40 miles away on the same line, a similar section has been exposed, and there seems every reason to believe that these fields will rank with the best in the quantity of available mineral. The quality of this asbestos is, however, different from any in the market. A very large proportion is over 4 in. in length, and this has so far proved an objection, as factory machines are arranged to take short fibre. In the course of time suitable machinery will doubtless be erected, but at present the fibre at Penge is actually being cut into short lengths to suit the market. The composition of this asbestos is different from the ordinary crocidolite variety, being higher in iron; and it is proposed to describe it as *amosite asbestos*. In texture the mineral, though fine, and easily fiberized, is harsher to the touch than the Cape variety, but the fibres are quite as strong and to a certain extent elastic. As this fibre can be put on the market at a very much lower price than any similar material, and occurs in extremely great quantities, it is certain that it will in the future create its own market. In the meantime the market is restricted, though a local use for the waste qualities is being found in the manufacture of asbestos tiles at a factory at Cape Town.

The chrysotile deposits of the Carolina District have been known in the market for many years. The mineral is there found in veins in a bed of noble serpentine, over a length of outcrop of some twenty miles. The fibre is of excellent quality, and commands a very high price, but working conditions have not hitherto proved favourable, and production has been small and spasmodic.

The value of the asbestos produced in the Union in 1924 was £110,075.

During the years 1922 and 1923 a group of chrysotile asbestos mines was developed at Kaapsche Hoop in the Barberton District, and during 1923 some 200 tons of very high-grade fibre were exported per month. The leading mine is developed to a depth of some 400 feet, both by incline and shafts and drives, which show a unique section both in quantity of asbestos and quality of the fibre. The mining of this is already highly payable, and it appears certain that the output will increase very considerably.

For a description of these deposits see Memoir No. 12, Geological Survey, "Asbestos in the Union of South Africa," and also the *Journal of Industries* for November, 1918, and Proceedings of the Geological Society of South Africa, 1921, page 168, on the "Asbestos Occurrences near Kaapsche Hoop in the Barberton District," A. L. Hall, and 1923, page 31, "Further Notes on the Asbestos Occurrences near Kaapsche Hoop in the Barberton District."

Asbestos of the several varieties also occurs in Natal and Zululand. These deposits are now attracting attention, but no reliable details as to their possibilities are available.

The following statement gives particulars regarding the sales and shipments of asbestos from the Union during the years 1919 to 1924 :—

SALES AND SHIPMENTS OF ASBESTOS FROM UNION, 1919 TO 1924.

Province.	1919.	1920.	1921.	1922.	1923.	1924.
	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*
Cape of Good Hope.....	3,204	3,526	3,467	2,991	4,317	3,001
Natal.....	98	45	62	6	—	—
Transvaal.....	631	3,541	1,593	1,392	4,076	4,239

* 2,000 lb.

(ii) *Corundum.*—The existence of corundum in the gneiss and schists of the Zoutpansberg and Barberton areas has been known for some years, but was not regarded as of commercial importance till the demand for abrasives created by the European war brought it into prominence. For the past ten years there has been a continuous but spasmodic production from the Bandolierkop District. The corundum occurs in the form of broken crystals in the surface detritus derived from certain belts in the gneiss. The origin of these crystals lies in plumasite veins below, the decomposition of which has set free the corundum crystals. The crystals are won by screening and washing the gravel in rotary pans. The gravel is commonly up to two feet in thickness, and may contain 5 to 10 per cent. corundum. The area covered by these deposits is unknown, but over 150 separate occurrences have already been worked. There is now an excellent demand both in America and in Europe for these crystals, but the market has been spoilt again and again by consignments being forwarded which are not up to sample. Gradually, however, the producers are learning their lesson, and a steady export is being obtained.

During 1921 a five-stamp battery and dressing plant were erected by the Zoutpansberg Grain Corundum Company, at Bandolierkop, to crush the corundum rock underlying the the above eluvial deposits. This plant produces about three tons a day of crushed and graded corundum for which a ready market can be obtained if only the grading is correct. Unfortunately, however, owing to lack of knowledge and insufficient capital, this Company has met with very great difficulties, many of its consignments being rejected owing to incorrect grading. Proper steps are now being taken to overcome these difficulties, and the future of the industry appears to be secured.

There is also a similar occurrence of corundum in the sillimanite gneiss at Steinkopf, in Namaqualand, but attempts to exploit this have not been attended by success.

The deposits and the industry are scientifically described in Memoir No. 15 of the Geological Survey of South Africa (see also *Journal of Industries*, May, 1918).

(iii) *Flint.*—Flint in the nodular form does not occur in South Africa, but as chert it makes very well-defined bands up to two feet and more in thickness in the dolomites. It has been worked for liners for tube-mills, but the introduction of steel and composite liners has checked the growth of this industry.

(iv) *Fluorspar.*—Fluorspar, calcium fluoride, is an important non-metallic mineral which is found to occur in workable deposits in the dolomite formation near Ottoshoop, Zeerust District. The deposits at present being worked are roughly circular in shape,

varying from 70 feet to 150 feet across, extending from surface downwards to a depth not yet determined. The deepest workings are at present about 60 feet. Each deposit consists of extremely high-grade mineral, averaging approximately 99·5 per cent. fluorspar with a maximum of 0·3 per cent. silica. The greater proportion is colourless, but purple, greenish, yellow, and brown samples are found.

Fluorspar is used in the smelting of iron, steel, and aluminium, and in the manufacture of enamelled ware, glazed tile and brick, opalescent glass, certain chemical products, and, to a small extent, for optical lenses. The local product is particularly suited to the manufacture of hydrofluoric acid on account of its unusual purity. This acid is extensively used by the aluminium industry in the preparation of fluorides necessary for the reduction of aluminium.

The mineral has been worked for some years on a small scale for local purposes, the market for which is limited. Latterly an export trade has been opened up, and this shows signs of a large increase, the extraordinary purity of the ore having excited keen interest amongst foreign manufacturers. The deposits are so consistently pure and unencumbered throughout their extent with any foreign substance that no preparation is necessary before the product is marketed.

(v) *Graphite.**—Impure graphite is of fairly common occurrence, both in the older sedimentary rocks and in the gneissic rocks, but so far it is only worked in one place—in the Zoutpansberg District. This little mine turns out about six tons per month. It is worked up by the owners into material for furnace linings and forge facings. The mineral occurs in a lens in gneiss; so far as opened, the deposit is over 200 feet long by 30 feet wide, and is mostly a fairly pure carbon. Certain veins in it give a very pure flake graphite, but not in large quantities.

(vi) *Gypsum.*—The cement factories of the Union have a constant need of gypsum and a good deal of work has been done searching for the mineral. Up to the present the only deposits found have been irregular segregations in the soil of some valleys and pans in the more arid districts of Natal and the Orange Free State.

The chief deposit hitherto discovered in the Orange Free State is on, and in the neighbourhood of, the farm Vrede (part of Fouries Rust), about 16 miles south-east of the town of Boshof, and is now held by the Gypsum Supply and Products Company, Ltd., recently constituted. It has only been opened up at one or two points, but is said to have been proved over an area exceeding 400 acres. A thickness of from 18 to 20 feet has been found at one point, but this represents the maximum and the average is not likely to exceed 5 or 6 feet at most. The material, which is obviously the result of deposition from surface waters, is much immixed with earth, but the portion retained on a 1-ft. square sieve, after being broken down and roughly cleaned, is over 90 per cent. pure. This mineral is also found along the Bloemfontein–Kimberley line, in the neighbourhood of Boschvark siding, and at a number of other places in the Orange Free State, but the deposits have in no case been opened up to any extent and very little is yet known of them. A few hundred tons have been turned out as a by-product in the process of salt-making and this represents a probable source of future supply.

(vii) *Kieselguhr.*—Kieselguhr occurs in the Amsterdam District of the eastern Transvaal, also near Krugersdorp, and in Griqualand West and Gordonia. It occurs as a deposit in the beds of certain small fresh-water marshes, and its occurrence may be very much wider, for it is not a material which attracts attention either by its appearance or its mode of occurrence. It has so far only been worked to a small extent, mainly for use in boiler-lining materials.

(viii) *Kaolin and Clays.*—Kaolin occurs as a decomposition product of the granite over very large areas, but has not yet been worked, except on a very small scale on the Cape Flats, where, however, its occurrence is not directly associated with granite, and in Natal.

(ix) *Fireclays.*—Fireclays are associated with all the coal measures of the country, and many are of excellent quality. These do not usually occur directly underlying coal, but are often separated from it by a hundred feet or more. Firebricks and crucibles of excellent quality are being manufactured from such clays near Boksburg.

A good firebrick is also made from the matrix of the glacial tillite underlying the coal seams at Vereeniging.

(x) *Pottery Clay.*—Most of the coal measure clays are suitable for pottery work. A deposit of these was worked at Olifantsfontein, between Pretoria and Johannesburg, and very excellent articles of domestic potteryware were produced. A difficulty was experienced in producing a white china, but it is believed that that could have been overcome by scientific methods. Owing, however, to the cheap price, and great variety, of imported pottery, these works have been closed down for some years.

(xi) *Common Clay.*—Good common clay for brickmaking is almost universal throughout the Union, and near the large centres beds of shale have been found giving a uniform and

* See *Journal of Industries*, February, 1918.

satisfactory clay for pipes, tiles, etc., which are now being produced in the Union on a large scale, and which are competing as roofing materials with the formerly universal galvanized iron.

(xii) *Lignite.*—A form of lignite occurs in the Knysna District of the Cape Province, in an extensive deposit, and impure peat is fairly common in the marshes on the edge of the Transvaal and Basutoland escarpment.

Inferior coal is common in all the Karroo formations. In the Karroo horizon in the Beaufort West and Laingsburg Districts of the Cape Province, veins up to five feet in width, both vertical and inclined, occur, filled with a coal-like substance, which appears to be an inspissated and carbonized bitumen, much in the same way as veins filled with manjac occur in the petroleum districts of other countries. This substance is not at present used, but it is of great scientific interest.

(xiii) *Lime.**—Three forms of limestone are at present known and worked :—

(a) *Magnesian Limestone.*—This is the common dolomite which covers vast areas in the Transvaal and Cape Provinces. It contains up to 40 per cent. carbonate of magnesia. It is largely burnt in ordinary kilns, and yields the common blue building lime of those Provinces.

(b) *White Lime.*—This is a pure white lime used for chemical purposes, and for the cyanide works of the Rand. It is usually obtained from stalagmitic deposits and cave fillings in the dolomite. At Potgietersrust a small area in the dolomite has been found where the beds are free from magnesia, but the deposits are unsatisfactory in size and continuity.

At Taung, in Bechuanaland, an extensive deposit of pure white limestone, said to contain not less than 7,000,000 tons, is now being opened up and connected with the railway. This will prove a most satisfactory development, for, up to date, there has been no adequate and suitable supply of pure limestone, for metallurgical purposes, available in the Union.

(c) *Desert Limestone.*—Vast areas in all the Provinces are covered by a desert limestone of considerable thickness. This, however, generally contains up to 20 per cent. silica and other impurities. It is largely worked near Pretoria, Mafeking, and in the Orange Free State, for cement making. For other purposes it does not generally yield a good lime.

Particulars of the output of lime in the Union will be found in Chapter XVII (Manufacturing Industries).

(xiv) *Magnesite.*†—Magnesite in workable quantities occurs in several places in the Transvaal, notably at Kaapmuiden, where a railway traverses the deposits. It occurs as a " stock-werk " of veins in serpentine. An attempt to work it on a large scale in 1906 failed, but in 1918 the output reached an average of nearly 70 tons per month. This is used for carbonic acid making in Johannesburg, the residue being turned into cupels. The deposits are extensive, but not continuous, and very favourably situated. At the time of the outbreak of war hopes were entertained of an export trade to America, which, however, were not realized owing to the increased freightage.

(xv) *Marble.*—Up to a few years ago the existence of pure marble in the Union was unknown. An inferior marble, or marbleized dolomite, occurs at Port Shepstone in Natal, but attempts to work it systematically have never been attended with success.

Of recent years attention has been called to the existence of a very considerable deposit of marble at and in the neighbourhood of the farm " Marble Hall," in the North Middelburg district. This marble is of great variety, and much of it is of excellent quality. It is fully reported on in the *Journal of Industries* for July, 1919. Unfortunately this deposit is at present some seventy miles from the railway, and it has not, therefore, been developed, although two or three small quarries have been opened on it. With the further development of the railway system of the country, this marble will probably become of great importance—more especially as it, or much of it, gives a pure metallurgical lime, good deposits of which are very scarce in the country.

In the Cape Province marble also occurs in the coast districts of Namaqualand and Van Rhynsdorp, and a black marble at Cango. None of these deposits has, however, been opened. The railway is now approaching the Van Rhynsdorp deposits, and these will probably be exploited.

(xvi) *Mica.*‡—Excellent mica occurs in the Transvaal along the Oliphants River, below the Berg in the Leydsdorp division of the Pietersburg district. The mica here occurs in large books up to 100 lb. and more in weight, in pegmatite lenses in the gneiss. The lenses occur in a line of country over a couple of miles in width and fifty miles long.

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* See Memoir No. 11, " Limestone Resources of the Union."
† See *Journal of Industries*, March, 1918.
‡ See *Journal of Industries*, April, 1918; also Geological Survey Memoir No. 13.

The mica can be cut in any size up to twelve inches, the majority of it cutting over three inches. It is usually slightly smoky in colour, but has excellent electrical resisting properties. It is now being worked on a small but steadily increasing scale, and there is no reason, now that the product is becoming known, why the industry should not develop steadily.

Mica has also been worked on a small scale at Steinkopf, in Namaqualand.

(xvii) *Mineral Oil.**—Mineral oil occurs in vesicles associated with the intrusive rocks of the Karroo formation. This is probably a distillation product from the carbonaceous beds below. The indications of flowing mineral oil existing in commercial quantities in the Union are not considered favourable.

(xviii) *Oil Shales.*—Beds of oil shale up to 4 feet in thickness, associated with the coal measures, occur in the Transvaal, Natal, and Cape Provinces. Experiments with these shales show that they yield a distillate up to 36 gallons to the ton from representative samples. At the present time a company has been formed to exploit those lying in the Wakkerstroom District of the Transvaal, and a bulk sample has been sent to England for a practical test. The outcrop of these shales extends at intervals for about 200 miles, running along the slopes of the great escarpment.

In 1922 a Committee, consisting of Dr. H. J. van der Byl (chairman), Professor Otto Hehner, Mr. H. J. Ibbotson, Sir R. N. Kotzé, Mr. K. B. Quinan, C.H., and Colonel J. G. Rose was appointed to investigate the question of liquid fuels in South Africa. The terms of reference were briefly to inquire into the possibility of manufacturing power alcohol from South African raw materials (oil shale and coal) and to determine the cost of manufacture, in order to ascertain whether Government support and encouragement were deserving to establish such an industry in the country. The Committee was required to report to Government upon the methods of retorting oil shales and coal submitted to it, to arrange for comparative tests on different South African shales, and to report upon the economic possibility of carbonizing South African coal for the production of motor fuel.

The Committee issued an interim report in March, 1925, which was published in the *Journal of Industries* in May of that year. This report makes a brief survey of the oil industry of the world, and observes that with the exception of the relatively small output from oil shale in Scotland, the world's supply of oil is at present drawn exclusively from oil wells. Oil shales, the report proceeds, are found in unlimited quantities throughout the world, and of these, as well as of coal, the United States possesses vast resources, which, however, are not utilized owing to the enormously greater capital expenditure and high cost of working as compared with wells.

South Africa possesses a considerable area of oil shale conveniently situated and of workable economic value, but it will require very considerable capital expenditure to carry on the industry. The Committee took oral evidence and obtained reports from several torbanite and oil shale companies, who regard the prospects of building up an oil industry as favourable. After making due allowance for what appeared to be over-estimates, the Committee agreed that there was a possibility of establishing a paying industry, especially if Government assistance were forthcoming. Geographically, South Africa is favourably situated for building up an oil shale industry, as all the important oil well centres are far distant, and the inland producer of oil would have in his favour the advantage of many thousand of miles of sea transport as well as cheaper local rail facilities. If the Scottish industry is able to survive under less favourable conditions the South African position should not be hopeless, but great caution would need to be observed in embarking upon the venture.

The final portion of the report was published in the *Journal of Industries* in November, 1925, and recommended a scheme of bounties arranged on a sliding scale and assessed on the market value of the products sold.

(xix) *Nitrates.*—Nitrates have been reported from all the more arid districts of the Union, but on investigation the deposits have never proved more important than cave fillings, where the mineral has been formed from the excreta of animals. An attempt has recently been made to exploit nitrate deposits of this description in the Prieska district, but it did not meet with success.

Geological Survey Memoir No. 14 gives a scientific description of the above deposits.

(xx) *Phosphates.*†—No phosphates were worked in the Union until the last few years, when attention has been called to a very important group of deposits in the neighbourhood of Saldanha Bay. These are of very considerable extent, and their quantities may be estimated by hundreds of thousands of tons. An attempt made to work them during the war period

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* See Report on Petroleum Prospects of the Union, by E. H. Cunningham Craig, October, 1914.

† See *Journal of Industries*, January, 1918.

met with failure, as the percentage of phosphoric acid did not come up to expectations, though the process used was successful. Since the war the price of imported phosphates has fallen to such an extent that it has not been deemed expedient to reopen the works, though in the future this will probably be done. A full report on the occurrence, by Dr. A. L. du Toit, Field Geologist to the Union Government, is published by the Geological Survey, in Memoir No. 10, 1917.

In the Transvaal, at Lulukop, in the Zoutpansberg District, is a limestone containing some 10 per cent. of apatite, which may also become of economic value.

(xxi) *Pigments* (*Mineral Paints*).—Red haematites and ochres of all descriptions, as well as specularite, occur in the older rocks of the Union.

(xxii) *Salt.*—No deposits of rock salt are known to occur, but in the Cape, the Orange Free State, and the Transvaal Provinces a very large quantity of rough salt is made from the liquor of salt pans. These pans are shallow depressions, often of several square miles in extent, in the surface of the more arid districts. They are without outlet and retain the inflow of water received in the rainy season, with the result that in many cases an excellent supply of brine remains available close to the surface. Such occurrences are worked now in practically every case where the brine is found to be of suitable quality and reasonable transport facilities are available. The great bulk of the salt is obtained entirely by solar evaporation in shallow dams, though, in case of one or two producers, artificial heat has been adopted for final precipitation of the concentrated liquor. The coarse salt obtained by solar evaporation is subject to contamination from dust, and has to be graded in course of recovery according to its apparent quality. A portion of the purest grade is subsequently ground fine for household and dairy purposes and put on the market in suitable form. The quality of this approximates to that of the European article. The Union is now almost self-supporting in this important commodity, but new calls are likely to arise, and there will doubtless be considerable further expansion in the salt industry.

Particulars of the output of salt in the Union will be found in Chapter XVII (Manufacturing Industries).

(xxiii) *Sulphur.*—There are no sulphur deposits of anything but scientific interest in the country, nor are any large deposits of massive pyrites known, except at Areachap in the Cape, near Upington. This mine, however, is in such an inaccessible position that its product cannot hope to compete on equal terms with the imported article.

There are many gossan outcrops in the older formations of the country which have not yet been opened up, and which may lead to sulphide deposits of magnitude. At present the auriferous concentrates from certain mines constitute the only source of sulphur for the sulphuric works attached to the explosives factories. These concentrates carry up to 45 per cent. sulphur, with about 1 oz. of gold to the ton. The supply at present is only some 400 tons per month, while the demand is at least 1,500 tons, the balance being made up by importation.

A comprehensive article on this subject appears in the *Journal of Industries* for November, 1920.

(xxiv) *Soda.*—There is only one notable occurrence of soda in the Union, that at the Pretoria saltpan. This pan is a crater-like depression some 200 feet below the surrounding country, and about 28 acres in extent. The bed of the pan, from which in the dry season all the liquid evaporates, consists of a black mud containing masses of trona. or solid crude carbonate of soda. The mud, which has been proved by boreholes to be at least 200 feet deep, has the following analysis :—

Moisture at 120° C.	50	per cent.
Na_2CO_3	16	,,
NaCl	15	,,
$CaCO_3$	3	,,
Insoluble	12	,,
Organic matter	4	,,
	100	,,

Recent geological work has proved the pan to be an explosion crater, similar to those which have formed the diamond pipes, and of post Karroo age.* The pan contains three valuable ingredients :—

(*a*) Saline mud, described above.
(*b*) Layers of trona or crystallized carbonate of soda.
(*c*) Saline liquor containing approximately 10 per cent. soda and 15 per cent. common salt.

* See Geological Survey Memoir No. 20 : "The Pretoria Salt-Pan : A Soda Caldera." By Dr. P. A Wagner.

In 1912 the South African Alkali Company started to work these deposits. For the first six years the trona only was worked, as that obviously gave the greatest immediate profit, and some 21,000 tons were won. The trona at the surface then gave out, and the Company turned its attention to the mud. So far, it has been found impossible to treat this, as the liquor obtained by artificially leaching the mud will not filter, neither will the impurities settle in a reasonable time.

In 1919, the original company came to the end of its resources, but a further sum of £50,000 was raised, and the control was taken over by another company. The plant was rearranged and completed, and started production in June, 1923. It produced at the rate of 130 tons soda ash per month of a purity of 98·5 per cent. plus some 45 to 50 tons of salt. In so far as the production of salt and soda went, the plant was entirely successful, but the price of production and marketing was not sufficiently below that of the imported article to command success. The local market for soda is nearly all under contract for six months' supplies. When those contracts expired in February, 1924, the company had 900 tons of soda on hand, but their price was undercut by the importers, and they failed to secure the contracts. The Company had, therefore, to suspend operations, as they were not successful in marketing their products.

The question of the dumping of soda was placed under the consideration of the Board of Trade and Industries, and a protective dumping duty imposed, but subsequently removed in April, 1926, when the conditions necessitating the additional protection ceased to operate.

The company is at present (1925) confining its attention to the production of soda. The plant for winning it has been remodelled. Brine is obtained from a series of boreholes in the pan and is subjected to a refrigerating process whereby sodium carbonate with 10 molecules of water is crystallized out. This decahydrate is centrifuged, remelted, evaporated in a vacuum pan and finally calcined.

(xxv) *Steatite** (*Talc*).—Steatite of excellent quality occurs in the Barberton district in very large quantities. Two companies are now producing steatite powder for all purposes, and an export trade is being started.

§ 11. State Aid to Mining.

The fifth and previous issues of this *Year Book* contained full particulars of State aid granted to mining in the various Provinces of the Union at different times. Owing to exigencies of space the information has not been repeated in the present issue.

§ 12. Mineral Laws of the Union.

Particulars of the mining laws of the Union and Provinces were published in previous issues (Nos. 1 to 6) of this *Year Book*, but have not been repeated owing to exigencies of space.

§ 13. Bibliography of Mineral Resources.

The following classified list contains the titles of the principal publications recently issued dealing with the minerals of South Africa. An extensive list was published in No. 7 and previous issues of the *Official Year Book* but has not been repeated here owing to limitations of space.

(i) *Gold.*

HATCH, F. H.—The Geology of the Far East Rand and the Heidelberg District, Southern Transvaal. London, Geol. Mag., 1922, pp. 249–256.

LAWN, J. G.—Anniversary Address by the President. Johannesburg, Proc. Geol. Soc. S.A., Vol. XXVII, 1924, pp. 19–30.

PIROW, H.—Investigations regarding the Existence of an Alleged Break in the Continuity of the Reef Body Mined in the Cason-Blue Sky Section of the East Rand Proprietary Mines. Pretoria, S.A. Jl. of Ind., Vol. VII, 1924, pp. 812–817.

WYBERGH, W. J.—The Economic Geology of Sable and Pilgrims Rest. Pretoria, Memoir No. 23, Geol. Survey Un. of S.A., 1925.

(ii) *Diamonds.*

CORNELL, F. C.—The Alluvial Diamondiferous Deposits of South and South-West Africa. London Jl. Soc. Arts, 1921, Vol. LXIX, pp. 136–147.

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CHAPTER XVII.

MANUFACTURING INDUSTRIES.

§ 1. Industrial Censuses.

1. **Industrial Censuses, 1891-1911.**—Although certain manufacturing industries have long been established in South Africa (see § 2 hereunder), the first statistical data in this connection for the Colonies now comprised within the Union were obtained for the Cape Colony at the Population Census of 1891, and for all four Colonies at the Population Census of 1904. These returns were rendered by manufacturing establishments, the annual production of each of which amounted in value to £100 or more. Returns were similarly called for and tabulated at the first Union Census of 1911. The summarized results of these inquiries are given in paragraph 4 below.

2. **Annual Industrial Censuses under the Statistics Act.**—A census of manufacturing industries was undertaken under the *Statistics Act* in 1917, and formed the first special inquiry of the kind in the Union. This is being repeated annually in terms of the Act. The period covered by the first census was the calendar year of 1915, or the business year ended not later than the 30th June, 1916. The large majority of returns were rendered for at least a part, many of them for a full half, of the year 1916, and the census may be taken therefore to have covered substantially the Union business year 1915–16. The scope of the inquiry was directed to the inclusion of all manufacturing establishments within the Union employing four or more hands, or utilizing any form of mechanical motive power. For the census covering the year 1916–17 and subsequent inquiries, the scope has been extended to cover establishments employing three or more hands, or utilizing any form of mechanical power or boilers for steam-heating purposes.

The results of the various censuses have been published in the form of annual reports, which have been supplemented since the end of 1923 by a series of special reports dealing with particular industries.

3. **Classification of Manufacturing Industries.**—Industries relating to the following matters have been specified, and returns obtained accordingly, the classification having been based as nearly as possible upon that adopted by, and in force in, the various States in Australia. In the classification adopted in the first census (for 1915–16), Tanning was included in Class I, Boots and Shoes in Class VI, and Harness and Saddlery in Class VIII. These have subsequently been grouped together under a new Class XV—Leather and Leatherware.

CLASSIFICATION OF MANUFACTURING INDUSTRIES.

CLASS I—RAW MATERIAL.

Boiling down, Tallow Refining, and Bone Milling.
Fellmongering and Wool-scouring.
Chaff-cutting and Corn-crushing.
Other Industries.

CLASS II—STONE, CLAY, ETC.

Bricks, Tiles, Earthenware, and Pottery.
Glass.
Lime Works.
Marble, Stone, Slate Dressing.
Cement Factories, Modelling in Cement, and Plaster.
Other Industries.

CLASS III—WOOD.

Brushes and Brooms, Basket and Wicker Work.
Carpentry and Joinery.
Cooperage, Packing Case and Box Works.
Saw Mills.
Other Industries.

CLASS IV—METALS, ENGINEERING, ETC.

Brass and Copper, Cutlery.
Engineering, Foundries, Blacksmithing (including Mine, Railway, and Tramway Workshops).
Galvanized Iron Works and Plumbing.
Wire Working (including Gate and Fence Making)
Other Industries.

CLASS V—FOOD, DRINK, ETC.

Bacon and Ham Curing.
Butter and Cheese Making.
Fish Preserving.
Meat Preserving.
Ice and Refrigerating.
Bread and Biscuit Making.
Confectionery and Sweet Making.
Flour and Grain Mills.
Fruit Preserving and Jam Making.
Coffee Roasting and Grinding, Tea, Pickle, Sauce and Spice Making.
Sugar Mills and Refineries.
Salt Pans, Salt Works.
Aerated Water Factories.
Breweries and Malt Works.
Distilleries.
Tobacco, Cigar and Cigarette Factories.
Other Industries.

CLASS VI—CLOTHING, TEXTILES, ETC.

Dressmaking and Millinery.
Hats and Caps, Hosiery, Shirts, and Ties.
Tailoring.
Other Clothing.
Bags and Sacks, Mats and Matting, Rope, Cordage and Twine.
Tarpaulins, Tents, and Sails.
Other Textile Industries.

CLASS VII—BOOKS, PRINTING, ETC.

Printing and Binding.
Photo Engraving and Lithographing.
Paper Bags and Cardboard Boxes.
Other Industries.

CLASS VIII—VEHICLES, ETC.

Coach and Wagon Building.
Cycle and Motor Repairing.
Spokes, Wheels, Yokes, Tyres, and other Industries.

CLASS IX—SHIP BUILDING, ETC.

Ship and Boat Building and Repairing.

CLASS X—FURNITURE, ETC.

Chair Factories.
Furniture, Cabinetmaking, and Upholstery.
Mattress Factories.
Picture Frames.
Other Industries.

CLASS XI—CHEMICALS, ETC.

Chemicals, Drugs, Perfumery, Disinfectants, Insecticides, Sheep and Cattle Dips.
Explosives and Matches.
Fertilizers.
Oil and Grease.
Paints, Varnishes.
Soap and Candles.
Other Industries.

CLASS XII—SURGICAL INSTRUMENTS, ETC.

Opticians.
Surgical, Dental, etc., Instruments and Appliances.

CLASS XIII—JEWELLERY, ETC.

Gold and Silver Smiths.
Other Industries (including Electro-Plating).

CLASS XIV—HEAT, LIGHT, AND POWER.

Electric Light and Power Stations.
Gas Works.
Other Industries (including Electrical Engineering).

CLASS XV—LEATHER AND LEATHERWARE.

Tanneries.
Boots and Shoes.
Harness and Saddlery.
Portmanteaux and Bags.

CLASS XVI—BUILDING AND CONTRACTING.

Building and Contracting (including new railway, road, waterworks and irrigation works construction from 1919–1920).

CLASS XVII—OTHER INDUSTRIES.

Miscellaneous.

4. Statistics of Manufacturing Production from 1904.—The main results of the inquiries taken in 1917, and each subsequent year covering the years 1915–16 to 1923–24 are given in the table hereunder in conjunction with those obtained in 1904 and 1911. Comparisons with these two years (1904 and 1911), however, cannot be pressed too closely. It seems probable that in the census of 1904 the returns included in some cases at least figures relating to merchanting, as well as manufacturing; and in the report of the census of 1911 no attempt was made to reconcile the results on that occasion with those for 1904. Clearly, too, the enumeration of distinct works, and the methods of valuing land, buildings, and improvements differed considerably in 1904 and 1911, and again in the regular annual censuses begun in 1917.

Beyond the statement hereunder of the total figures under various main headings as to the returns for the Union and each of the Provinces in 1904 and 1911 no further comparisons between these figures have been attempted, for the reason that those for preceding censuses must be taken with considerable reserve. The annual census under the *Statistics Act* taken for the first time in 1917 has the advantage of a specialized inquiry taken on a basis which will admit of close comparisons being made annually from that date. The value of cotton seed and of the finished article is not included under the headings "Materials used" and "Articles manufactured" as heretofore.

MANUFACTURING PRODUCTION IN THE UNION.—GENERAL SUMMARY—1904, 1911, AND 1915–16 TO 1923–24.

Year.	No. of Establishments.	No. of Employees.		Salaries and Wages Paid to		Fuel Used, etc.	Power Used.	Materials Used.	Value of Gross Output.	Value Added by Process of Manufacturers.
		European.	Other.	Europeans.	Others.					
				£	£	£	H.P.	£	£	£
1904...	4,841	30,360	56,004	*	*	*	51,492	11,658,084	20,565,394	*
1911...	2,473	21,049	44,867	4,208,541		*	140,799	9,389,314	17,248,834	*
1915–16	3,998	39,524	61,654	6,739,966	2,172,891	1,246,379	417,942	22,315,587	40,434,882	18,119,295
1916–17	5,305	46,100	77,742	7,760,674	2,676,020	1,486,857	447,428	28,023,948	49,457,412	21,433,464
1917–18	5,918	49,918	84,293	9,021,513	2,206,187	1,892,198	593,489	34,248,341	60,123,111	25,874,770
1918–19	5,968	53,598	89,490	10,712,498	3,763,150	2,064,679	555,322	41,019,680	70,934,098	29,914,418
1919–20	6,890	62,483	113,037	13,922,258	5,196,832	2,496,254	581,682	53,851,256	92,913,844	39,062,588
1920–21	7,005	62,962	116,857	16,082,517	5,823,572	2,786,138	700,480	57,965,271	98,307,910	40,342,639
1921–22	7,055	59,995	110,956	14,777,085	5,352,743	2,868,152	740,293	42,823,441	79,446,299	36,622,858
1922–23	7,029	61,296	110,751	13,903,904	5,282,430	2,958,803	778,507	37,139,803	74,486,292	37,346,489
1923–24	7,112	66,189	116,688	14,928,555	5,576,651	3,326,947	818,268	39,203,418	79,789,348	40,585,930

* Not available.

§ 2. Factory Production.*

1. **Number of Factories.**—Particulars are given hereunder as to the number of factories in each Province, and in the industrial centres of the Witwatersrand, Cape Peninsula, Durban, and Port Elizabeth. The classes of industry with which factories are connected in the Union are set out in § 1 (3) above. Factories have been separately enumerated, even when under the same management as other establishments, if concerned with a clearly distinct class of work. In many cases, however, factories have been engaged upon various, often dissimilar, operations, for which it has been found impossible to render separate returns. In such cases the establishment has been enumerated in the subjoined return as a single factory, classified according to the character of the principal industry with which it was concerned.

(i) NUMBER OF FACTORIES IN UNION, 1915-16 TO 1923-24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1915–16.....	1,970	597	1,157	274	3,998
1916–17.....	2,544	768	1,618	375	5,305
1917–18.....	2,774	864	1,879	401	5,918
1918–19.....	2,723	828	1,998	419	5,968
1919–20.....	3,008	976	2,355	551	6,890
1920–21.....	3,048	1,058	2,355	544	7,005
1921–22.....	3,028	1,155	2,356	516	7,055
1922–23.....	2,975	1,180	2,349	525	7,029
1923–24.....	2,989	1,164	2,440	519	7,112

* A detailed analysis of the results of the Industrial Censuses from 1915–16 to 1920–21 was published in the sixth issue of this *Year Book*. The author of the article is Professor R. A. Lehfeldt, D.Sc., of the University of the Witwatersrand. Owing to considerations of space it has not been possible to repeat the section in subsequent issues.

(ii) NUMBER OF FACTORIES OF EACH CLASS IN CERTAIN INDUSTRIAL CENTRES, 1923-24.

CLASS OF INDUSTRY.	PROVINCES.				UNION OF SOUTH AFRICA.	PRINCIPAL INDUSTRIAL CENTRES (included in Provinces).			
	Cape of Good Hope.	Natal.	Trans-vaal.	Orange Free State.		Cape Peninsula.	Port Elizabeth.	Durban (including Pinetown).	Witwatersrand.
I. Raw Material....	48	44	24	—	116	33	5	15	17
II. Stone, Clay, etc...	119	42	156	23	340	58	9	19	130
III. Wood.....	95	68	65	9	237	44	9	28	57
IV. Metals, Engineering, etc.....	295	122	385	75	877	122	26	61	301
V. Food, Drink, etc..	902	266	514	186	1,868	244	41	69	289
VI. Clothing, Textiles, etc.....	357	159	255	31	802	205	26	116	226
VII. Books, Printing, etc.....	153	47	102	16	318	68	10	32	87
VIII. Vehicles.....	364	141	266	87	858	90	16	53	169
IX. Ship Building, etc.	5	6	—	—	11	4	—	6	—
X. Furniture, etc....	86	27	88	5	206	37	16	22	83
XI. Chemicals, etc....	42	33	49	1	125	29	6	25	47
XII. Surgical Instruments, etc.....	7	1	15	—	23	6	1	1	15
XIII. Jewellery, etc....	12	10	22	—	44	5	2	7	21
XIV. Heat, Light, and Power.....	67	51	118	21	257	27	8	18	77
XV. Leather and Leatherware.....	132	30	56	10	228	50	21	15	49
XVI. Building and Contracting.....	291	107	310	55	763	97	32	65	263
XVII. Other Industries..	14	10	15	—	39	9	1	6	14
TOTAL.....	2,989	1,164	2,440	519	7,112	1,128	229	558	1,845

2. **Dates of Establishment of Factories.**—The subjoined table indicates the distribution of factories in various sections of industry, classified in each case according to the date of establishment. In a number of cases, principally those of the smaller concerns, the date of establishment is not known, owing generally to the fact that there has been transfer from the original owner. The table illustrates the development of industries of various classes during recent years; and although the mere increase in the number of factories is by itself no sure criterion of industrial progress, the table affords a record of the initiation of new concerns during the various periods specified.

NUMBER OF FACTORIES IN THE UNION, 1923-24, CLASSIFIED ACCORDING TO DATE OF ESTABLISHMENT.

Class of Industry.*	Before 1890.	1890–99.	1900–09.	1910–18.	1919.	1920.	1921.	1922.	1923.	Not stated.	Total.
I.....	6	7	33	36	7	6	6	11	4	—	116
II.....	14	24	77	95	26	29	21	31	23	—	340
III.....	14	17	46	88	21	15	13	11	12	—	237
IV.....	58	81	190	247	50	40	40	31	41	99	877
V.....	116	156	360	652	164	118	115	105	82	—	1,868
VI.....	35	65	193	258	53	48	65	45	40	—	802
VII.....	47	38	84	84	16	14	14	12	9	—	318
VIII.....	36	42	118	298	76	86	73	74	55	—	858
IX.....	2	—	1	6	—	1	—	1	—	—	11
X.....	10	13	43	75	15	22	13	6	9	—	206
XI.....	5	7	19	53	4	8	13	8	8	—	125
XII.....	1	1	4	11	1	1	2	—	2	—	23
XIII.....	7	5	9	15	3	—	2	3	—	—	44
XIV.....	7	31	68	90	11	11	17	12	10	—	257
XV.....	32	20	42	87	11	14	5	8	9	—	228
XVI.....	61	64	204	206	43	48	31	57	49	—	763
XVII.....	3	1	5	16	6	3	4	1	—	—	39
TOTAL....	454	572	1,496	2,317	507	464	434	416	353	99	7,112

* For description of industry see § 1 (3) or other similar tables in this chapter.

3. **Capital of Factories.**—The returns asked for in respect of factories in the first two Industrial Censuses included particulars as to capital, made up of (*a*) the value of land and buildings, (*b*) the value of machinery and plant, and (*c*) other capital (outstandings, stocks, cash in hand and in bank, and all movable assets).

The particulars required in respect of land, buildings, machinery, and plant were accepted as reasonably accurate; but in many cases it was found that establishments encountered difficulty in arriving at the true figure as regards total capital; particularly where a manufacturing and a trading business were combined under one amount of capital, or where the capital covered some other class of industry carried on in the same or even in a separate locality. For this reason it was decided to discontinue returns as to capital, and instead to confine the returns to the value of land and buildings, machinery, and plant.

4. **Land and Buildings (Factories).**—The value of land and buildings owned by the occupiers and used as factories is arrived at by giving the Government valuation where such exists, or the municipal or other recognized valuation, or failing such, the price at which the owner is prepared to sell. In the majority of cases a recognized valuation exists and is given, the amount falling under the last alternative being inconsiderable. The following tables give (i) the value as returned in each of the Provinces; (ii) in respect of each class of industry in the Union in each of certain important industrial centres.

(i) VALUE OF LAND AND BUILDINGS OWNED BY OCCUPIERS AND USED AS FACTORIES, 1915-16 TO 1923-24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915–16	2,862,393	2,085,165	3,266,639	546,015	8,760,212
1916–17	3,278,998	2,693,037	4,168,058	579,795	10,719,888
1917–18	3,593,553	3,212,219	4,704,909	546,455	12 057,136
1918–19	3,939,850	3,598,499	4,557,187	638,566	12,734,102
1919–20	4,805,938	3,756,843	5,060,449	773,397	14,396,627
1920–21	5,075,244	3,194,364	5,187,368	755,560	14,212,536
1921–22	5,375,290	3,387,961	5,509,050	830,209	15,102,510
1922–23	5,705,902	3,712,768	5,579,491	837,429	15.835,590
1923–24	5,764,333	3,619,488	5,739,402	844,667	15,967,890

(ii) VALUE OF LAND AND BUILDINGS OWNED BY OCCUPIERS AND USED AS FACTORIES OF EACH CLASS IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923-24.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Material	24,088	41,000	62,474	34,033	369,187
II. Stone, Clay, etc	227,263	63,281	26,341	5,425	762,271
III. Wood	144,200	125,102	54,408	16,814	458,903
IV. Metals, Engineering, etc	917,140	591,776	447,977	22,470	2,645,707
V. Food, Drink, etc	1,014,124	1,031,658	501,639	257,352	4,686,719
VI. Clothing, Textiles, etc	125,802	88,575	59,204	4,478	327,763
VII. Books, Printing, etc	181,605	269,980	78,864	22,159	672,112
VIII. Vehicles, etc	118,203	66,628	33,835	3,100	455,612
IX. Ship Building, etc	—	3,150	3,150	—	6,450
X. Furniture, etc	66,263	116,804	38,411	17,865	263,070
XI. Chemicals, etc	810,576	608,258	450,173	29,253	2,032,800
*XII. Surgical Instruments, etc	} 5,612	17,870	500	—	25,982
*XIII. Jewellery, etc					
XIV. Heat, Light, and Power	1,444,941	275,575	92,485	58,839	2,263,527
XV. Leather and Leatherware	15,831	100,502	2,245	107,675	322,964
XVI. Building and Contracting	135,165	213,330	85,155	7,609	588,881
XVII. Other Industries	75,317	7,100	25,125	†100	115,942
TOTAL £	5,306,130	3,620,589	1,961,986	587,172	15,967,890

* Classes combined in respect of industrial centres, owing to the small number of establishmen concerned.

† Including Classes XII and XIII.

5. **Machinery and Plant in Factories.**—The following tables give particulars as to the value of machinery and plant used in factories in each Province, and according to the main classification of industries in four of the Principal Industrial Centres :—

(i) VALUE OF MACHINERY AND PLANT USED IN FACTORIES, 1915-16 TO 1923-24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915–16	4,046,564	3,524,990	7,582,277	623,406	15,777,237
1916–17	4,246,333	3,888,531	9,002,250	741,519	17,878,633
1917–18	4,564,706	4,490,323	10,104,250	742,984	19,902,263
1918–19	4,522,402	4,986,987	10,548,890	921,499	20,979,778
1919–20	5,340,561	5,398,874	11,707,405	1,043,384	23,490,224
1920–21	6,309,937	5,889,458	12,362,502	1,058,271	25,620,168
1921–22	6,954,585	6,635,406	13,078,149	1,192,627	27,860,767
1922–23	7,754,019	7,222,861	13,266,397	1,344,827	29,588,104
1923–24	8,248,415	7,036,891	13,793,980	1,352,857	30,432,143

(ii) VALUE OF MACHINERY AND PLANT USED IN FACTORIES OF EACH CLASS IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923-24.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Material	18,321	25,785	36,987	77,402	263,418
II. Stone, Clay, etc.	436,189	84,548	27,017	5,935	1,469,440
III. Wood	89,381	82,185	72,062	27,570	376,276
IV. Metals, Engineering, etc.	1,732,878	557,195	366,361	32,640	3,563,434
V. Food, Drink, etc.	956,181	823,904	552,945	270,919	5,865,057
VI. Clothing, Textiles, etc.	104,862	141,919	34,645	6,418	314,119
VII. Books, Printing, etc.	401,928	326,049	116,190	42,507	1,110,450
VIII. Vehicles, etc.	65,437	40,677	25,668	4,314	278,593
IX. Shipbuilding etc.	—	1,109	1,916	—	3,075
X. Furniture, etc.	38,868	52,973	27,862	8,327	153,355
XI. Chemicals, etc.	644,516	404,054	617,849	16,893	2,061,576
*XII. Surgical Instruments, etc.	13,258	2,294	2,527	—	22,620
*XIII. Jewellery, etc.					
XIV. Heat, Light, and Power	7,661,020	1,535,826	967,490	446,087	13,105,707
XV. Leather and Leatherware	47,660	94,908	17,340	133,954	430,439
XVI. Building and Contracting	256,388	166,183	271,787	44,140	878,464
XVII. Other Industries	63,818	239,660	164,781	† 2,521	536,120
TOTAL £	12,530,705	4,579,269	3,303,427	1,119,627	30,432,143

* Classes combined in respect of industrial centres, owing to the small number of establishments concerned.
† Includes Classes XII and XIII.

6. **Motive Power in Factories.**—Particulars are given hereunder as to the number of works and establishments employing mechanical motive power, electric, steam, oil, gas, or water, in each Province :—

(i) MOTIVE POWER IN FACTORIES IN UNION, 1915–16 TO 1923–24.

Year.	Electricity.		Steam.		Water.	Other Power.		Total.
	Works.	H.P.	Works.	H.P.	Works.	Works.	H.P.	H.P.
	No.		No.		No.	No.		
1915–16	1,213	121,464	710	284,494	177	634	11,984	417,942
1916–17	1,477	115,171	788	318,063	144	706	14,194	447,428
1917–18	1,647	137,229	866	435,237	205	780	21,023	593,489
1918–19	1,698	117,929	884	419,815	181	769	17,578	555,322
1919–20	1,866	124,161	993	432,800	201	956	24,721	581,682
1920–21	1,995	142,884	987	472,877	194	993	84,719	700,480
1921–22	2,113	152,372	963	498,937	182	1,006	88,984	740,293
1922–23	2,209	169,317	958	516,857	181	1,007	92,333	778,507
1923–24	2,280	176,729	931	548,967	180	1,024	92,572	818,268

(ii) MOTIVE POWER IN FACTORIES IN EACH PROVINCE AND IN CERTAIN INDUSTRIAL CENTRES, 1923-24.

Province or Centre.	Electricity.		Steam.		Water.	Other Power.		Total.
	Works.	H.P.	Works.	H.P.	Works.	Works.	H.P.	H.P.
	No.		No.		No.	No.		
Cape of Good Hope.	845	34,697	251	79,409	115	573	13,255	127,361
Cape Peninsula*...	456	19 407	80	30,174	6	124	3,179	52,760
Port Elizabeth*...	121	3,718	17	8,836	—	20	698	13,252
Natal.....	403	28,342	249	67,098	14	143	3,427	98,867
Durban †.....	271	16,444	51	25,589	1	39	1,511	43,544
Transvaal.....	922	108,908	347	387,960	38	215	73,819	570,687
Witwatersrand‡...	837	100,043	193	362,925	8	103	68,185	531,153
Orange Free State...	110	4,782	84	14,500	13	93	2,071	21,353
UNION.....	2,280	176,729	931	548,967	180	1,024	92,572	818,268

* Included in Cape of Good Hope. † Included in Natal. ‡ Included in Transvaal.

7. **Cost of Fuel, Light, and Power in Factories.**—The following tables give the cost of fuel, light, and power in various classes of factories in each Province, and in four of the principal industrial centres :—

(i) COST OF FUEL, LIGHT, AND POWER USED IN FACTORIES, 1915-16 TO 1923-24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915-16.....	276,213	199,731	727,439	42,996	1,246,379
1916-17.....	344,083	233,237	858,562	50,975	1,486,857
1917-18.....	533,356	277,972	1,009,203	71,667	1,892,198
1918-19.....	520,980	327,295	1,152,073	64,331	2,064,679
1919-20.....	583,032	404,212	1,407,895	101,115	2,496,254
1920-21.....	666,193	445,576	1,558,097	116,272	2,786,138
1921-22.....	676,782	468,791	1,606,166	116,413	2,868,152
1922-23.....	699,625	578,796	1,574,829	105,553	2,958,803
1923-24.....	801,082	579,515	1,815,054	131,296	3,326,947

(ii) COST OF FUEL, LIGHT, AND POWER USED IN FACTORIES OF EACH CLASS IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923-24.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Materials.....	1,045	1,339	3,379	850	16,380
II. Stone, Clay, etc.....	108,286	22,319	5,662	3,940	289,951
III. Wood.....	7,020	6,638	5,282	1,980	29,179
IV. Metals, Engineering, etc.....	276,072	23,817	26,346	2,329	463,410
V. Food, Drink, etc.....	94,440	101,154	62,000	18,756	632,397
VI. Clothing, Textiles, etc.....	17,835	12,632	6,021	1,772	44,794
VII. Books, Printing, etc.....	15,457	15,014	3,487	1,406	45,151
VIII. Vehicles, etc.....	11,219	4,876	3,132	1,075	41,676
IX. Shipbuilding.....	—	81	86	—	167
X. Furniture, etc.....	3,567	5,136	1,663	1,119	13,088
XI. Chemicals, etc.....	60,588	81,589	28,753	1,440	184,754
*XII. Surgical Instruments, etc.....	1,192	442	300	—	2,193
*XIII. Jewellery, etc.....					
XIV. Heat, Light, and Power.....	1,013,930	92,444	59,430	19,368	1,429,230
XV. Leather and Leatherware.....	2,823	7,311	662	9,033	32,174
XVI. Building and Contracting.....	9,501	12,768	14,821	2,014	49,556
XVII. Other Industries.....	3,684	34,048	12,984	† 147	52,847
TOTAL.....£	1,627,259	421,608	234,008	65,229	3,326,947

* Classes combined in respect of industrial centres, owing to small number of establishments concerned.

† Includes Classes XII and XIII.

8. **Factory Employees.**—The following tables give particulars as to the race and sex of persons employed in factories in each Province, and in factories classified according to the nature of the industry; and also the number of Europeans under eighteen years of age employed in various classes of industry :—

(i) RACE AND SEX OF EMPLOYEES IN UNION, 1915-16 TO 1923-24.

YEAR.	Europeans.		Non-Europeans.		All Races.		GRAND TOTAL.
	Male.	Female.	Male.	Female.	Male.	Female.	
	No.	No.	No.	No.	No.	No.	No.
1915–16.....	34,938	4,586	56,877	4,777	91,815	9,363	101,178
1916–17.....	40,937	5,163	71,629	6,113	112,566	11,276	123,842
1917–18.....	43,683	6,235	77,464	6,829	121,147	13,064	134,211
1918–19.....	47,136	6,462	82,454	7,036	129,590	13,498	143,088
1919–20.....	55,724	6,759	105,324	7,713	161,048	14,472	175,520
1920–21.....	56,748	6,214	109,482	7,375	166,230	13,589	179,819
1921–22.....	53,937	6,058	103,736	7,220	157,673	13,278	170,951
1922–23.....	54,781	6,515	103,550	7,201	158,331	13,716	172,047
1923–24.....	59,085	7,104	109,552	7,136	168,637	14,240	182,877

(ii) RACE AND SEX OF EMPLOYEES IN FACTORIES IN EACH PROVINCE, AND IN CERTAIN INDUSTRIAL CENTRES, 1923-24.

Province.	Europeans.		Non-Europeans.		All Races.		Grand Total.
	Male.	Female.	Male.	Female.	Male.	Female.	
	No.	No.	No.	No.	No.	No.	No.
Cape of Good Hope	21,999	3,491	32,790	5,791	54,789	9,282	64,071
Cape Peninsula*.	10,568	1,622	16,500	4,289	27,068	5,911	32,979
Port Elizabeth*.	2,494	759	3,838	504	6,332	1,263	7,595
Natal.....	9,842	850	28,085	1,055	37,927	1,905	39,832
Durban†.....	6,527	667	14,500	509	21,027	1,176	22,203
Transvaal.....	24,279	2,527	44,557	268	68,836	2,795	71,631
Witwatersrand‡.	22,183	2,371	39,892	217	62,075	2,588	64,663
Orange Free State.	2,965	236	4,120	22	7,085	258	7,343
UNION.....	59,085	7,104	109,552	7,136	168,637	14,240	182,877

* Included in Cape of Good Hope. † Included in Natal. ‡ Included in Transvaal.

(iii) AVERAGE NUMBER OF EMPLOYEES IN FACTORIES OF EACH CLASS IN THE UNION, 1923-24.

Class of Industry.	Europeans.		Non-Europeans.		All Races.		Grand Total.
	Male.	Female.	Male.	Female.	Male.	Female.	
	No.	No.	No.	No.	No.	No.	No.
I. Raw Materials.....	263	8	1,900	273	2,163	281	2,444
II. Stone, Clay, etc.....	1,421	21	12,385	5	13,806	26	13,832
III. Wood.....	1,807	18	3,216	234	5,023	252	5,275
IV. Metals, Engineering, etc....	18,375	84	21,271	168	39,646	252	39,898
V. Food, Drink, etc.....	5,980	1,532	19,405	3,655	25,385	5,187	30,572
VI. Clothing, Textiles, etc.....	1,924	2,362	3,305	1,645	5,229	4,007	9,236
VII. Books, Printing, etc.....	3,818	1,268	1,904	594	5,722	1,862	7,584
VIII. Vehicles, etc.....	3,829	52	2,492	—	6,321	52	6,373
IX. Shipbuilding.....	78	5	64	—	142	5	147
X. Furniture, etc.....	1,646	76	2,228	63	3,874	139	4,013
XI. Chemicals, etc.....	1,714	497	6,215	273	7,929	770	8,699
XII. Surgical Instruments,etc. ..	86	8	30	—	116	8	124
XIII. Jewellery, etc.....	169	4	86	—	255	4	259
XIV. Heat, Light, and Power....	4,890	72	6,832	10	11,722	82	11,804
XV. Leather and Leatherware...	2,349	977	3,484	142	5,833	1,119	6,952
XVI Building and Contracting...	10,269	57	23,677	72	33,946	129	34,075
XVII. Other Industries.....	467	63	1,058	2	1,525	65	1,590.
TOTAL.....	59,085	7,104	109,552	7,136	168,637	14,240	182,877

(iv) AVERAGE NUMBER AND PERCENTAGE OF EMPLOYEES OF EACH RACE IN FACTORIES IN EACH PROVINCE AND CERTAIN INDUSTRIAL CENTRES, 1923–24.

Province or Centre.	Europeans.		Non-Europeans.		All Races.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Cape of Good Hope	25,490	40	38,581	60	64,071	100
Cape Peninsula*	12,190	37	20,789	63	32,979	100
Port Elizabeth*	3,253	43	4,342	57	7,595	100
Natal	10,692	27	29,140	73	39,832	100
Durban†	7,194	32	15,009	68	22,203	100
Transvaal	26,806	37	44,825	63	71,631	100
Witwatersrand‡	24,554	38	40,109	62	64,663	100
Orange Free State	3,201	44	4,142	56	7,343	100
UNION	66,189	36	116,688	64	182,877	100

* Included in Cape of Good Hope. † Included in Natal. ‡ Included in Transvaal.

(v) AVERAGE NUMBER AND PERCENTAGE OF EMPLOYEES OF EACH RACE IN VARIOUS CLASSES OF INDUSTRY, UNION, 1923–24.

Class of Industry.	Europeans.		Non-Europeans.		All Races.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
I. Raw Material	271	11	2,173	89	2,444	100
II. Stone, Clay, etc.	1,442	10	12,390	90	13,832	100
III. Wood	1,825	35	3,450	65	5,275	100
IV. Metals, Engineering, etc.	18,459	46	21,439	54	39,898	100
V. Food, Drink, etc.	7,512	25	23,060	75	30,572	100
VI. Clothing, Textiles, etc.	4,286	46	4,950	54	9,236	100
VII. Books, Printing, etc.	5,086	67	2,498	33	7,584	100
VIII. Vehicles, etc.	3,881	61	2,492	39	6,373	100
IX. Shipbuilding, etc.	83	56	64	44	147	100
X. Furniture, etc.	1,722	43	2,291	57	4,013	100
XI. Chemicals, etc.	2,211	25	6,488	75	8,699	100
XII. Surgical Instruments, etc.	94	76	30	24	124	100
XIII. Jewellery, etc.	173	67	86	33	259	100
XIV. Heat, Light, and Power	4,962	42	6,842	58	11,804	100
XV. Leather and Leatherware	3,326	48	3,626	52	6,952	100
XVI. Building and Contracting	10,326	30	23,749	70	34,075	100
XVII. Other Industries	530	33	1,060	67	1,590	100
TOTAL	66,189	36	116,688	64	182,877	100

(vi) NUMBER OF EUROPEANS UNDER EIGHTEEN YEARS, OF EACH SEX, EMPLOYED IN FACTORIES, 1915–16 TO 1923–24.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1915–16*	301	142	47	8	165	29	4	47	517	226
1916–17	697	401	163	65	666	144	58	7	1,584	617
1917–18	833	440	216	66	946	242	90	83	2,085	831
1918–19	833	411	198	72	1,037	265	101	155	2,169	903
1919–20	826	361	286	71	968	260	71	33	2,151	725
1920–21	569	307	252	74	1,011	262	98	25	1,930	668
1921–22	516	355	235	54	832	189	66	17	1,649	615
1922–23	629	350	292	80	918	223	96	17	1,935	670
1923–24	848	399	300	123	1,102	251	106	13	2,356	786

* Under 16 years.

(vii) NUMBER OF EUROPEANS UNDER EIGHTEEN YEARS, OF EACH SEX, EMPLOYED IN FACTORIES IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923-24.

Class of Industry.	Southern Transvaal.		Cape Western.		Durban and Pinetown.		Port Elizabeth.		Union.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
I. Raw Materials.....	—	—	—	—	—	—	—	—	—	—
II. Stone, Clay, etc.....	27	—	5	—	1	—	—	—	45	—
III. Wood.....	28	—	25	—	35	—	2	—	117	—
IV. Metals, Engineering, etc.....	513	1	147	—	41	1	8	1	834	4
V. Food, Drink, etc....	11	26	19	80	9	46	1	4	83	223
VI. Clothing, Textiles, etc.	15	117	7	36	4	48	1	12	35	265
VII. Books, Printing, etc.	48	71	28	26	17	4	4	4	136	119
VIII. Vehicles, etc.....	61	—	35	1	12	—	5	—	177	3
IX. Shipbuilding, etc....	—	—	—	—	4	—	—	—	4	—
X. Furniture, etc.....	53	1	115	—	6	—	1	—	187	1
XI. Chemicals, etc.....	11	12	9	2	—	1	1	2	23	17
* XII. Surgical Instruments, etc.....	13	—	1	—	—	—	—	—	18	—
* XIII. Jewellery, etc.....										
XIV. Heat, Light, and Power.....	79	—	19	—	15	—	2	—	129	—
XV. Leather and Leather-ware.....	15	10	32	15	9	2	126	84	226	151
XVI. Building and Contracting.....	160	1	11	1	50	1	9	—	331	3
XVII. Other Industries....	7	—	1	—	2	—	† 2	†	11	—
TOTAL.....	1,041	239	454	161	205	103	162	107	2,356	786

* Classes combined in industrial centres, owing to small number of establishments concerned.
† Includes Classes XII and XIII.

9. **Wages Paid in Factories.**—Particulars are given hereunder as to wages paid and average wages paid in factories in the Union to Europeans and non-Europeans respectively; as to wages paid and average wages paid to Europeans and others in factories of each class, and as to salaries paid to managers and salaried staff and wages paid to wage-earners in each class of industry.

(i) WAGES PAID IN FACTORIES IN UNION, TO EUROPEANS AND NON-EUROPEANS, 1915-16 TO 1923-24.

Year.	Europeans.	Non-Europeans.	All Employees.
	£	£	£
1915–16.....	6,739,966	2,172,891	8,912,857
1916–17.....	7,760,674	2,676,020	10,436,694
1917–18.....	9,021,513	3,206,187	12,227,700
1918–19.....	10,712,498	3,763,150	14,475,648
1919–20.....	13,922,258	5,196,832	19,119,090
1920–21.....	16,082,517	5,823,572	21,906,089
1921–22.....	14,777,085	5,352,743	20,129,828
1922–23.....	13,903,904	5,282,430	19,186,334
1923–24.....	14,928,555	5,576,651	20,505,206

(ii) AVERAGE WAGES PAID IN FACTORIES IN UNION TO EUROPEANS AND NON-EUROPEANS, 1915-16 TO 1923-24.

Year.	Europeans.	Non-Europeans.	All Employees.
	£	£	£
1915–16.....	186	35	91
1916–17.....	185	34	87
1917–18.....	198	38	94
1918–19.....	218	42	105
1919–20.....	244	46	112
1920–21.....	279	50	126
1921–22.....	270	48	122
1922–23.....	248	48	115
1923–24.....	246	48	116

(iii) WAGES AND AVERAGE WAGE PAID IN FACTORIES IN EACH PROVINCE AND IN CERTAIN INDUSTRIAL CENTRES, 1923-24.

Province or Centre.	Europeans.		Non-Europeans.		All Employees.	
	Wages.	Average Wage.	Wages.	Average Wage.	Wages.	Average Wage.
	£	£	£	£	£	£
Cape of Good Hope....	4,761,932	206	2,366,200	62	7,128,132	116
Cape Peninsula*.....	2,541,869	224	1,522,163	73	4,064,032	127
Port Elizabeth*.....	558,853	181	243,170	56	802,023	108
Natal.....	2,709,491	272	1,134,678	39	3,844,169	99
Durban†.....	1,867,823	272	645,377	43	2,513,200	116
Transvaal.....	6,813,362	274	1,921,830	43	8,735,192	125
Witwatersrand‡.....	6,410,690	277	1,751,469	44	8,162,159	129
Orange Free State.....	643,770	233	153,943	37	797,713	115
UNION.....£	14,928,555	246	5,576,651	48	20,505,206	116

* Included in Cape of Good Hope. † Included in Natal. ‡ Included in Transvaal.

(iv) TOTAL WAGES PAID TO EACH CLASS OF EMPLOYEE IN FACTORIES IN CERTAIN INDUSTRIAL CENTRES, 1923-24.

Class of Industry.*	Southern Transvaal.		Cape Western.		Durban and Pinetown.		Port Elizabeth.	
	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.
	£	£	£	£	£	£	£	£
I.....	3,596	8,198	4,627	14,696	3,338	17,598	6,386	7,263
II.....	41,311	307,955	12,262	85,256	7,204	26,418	691	15,789
III.....	29,014	138,321	19,536	118,429	6,117	103,429	6,272	30,685
IV.....	337,886	2,740,056	98,316	672,841	85,715	661,116	9,962	53,072
V.....	121,526	326,229	184,051	449,448	79,159	131,751	31,109	81,339
VI.....	39,883	271,796	49,187	202,839	16,570	87,639	5,119	22,842
VII.....	113,016	435,263	105,094	348,013	39,601	125,826	11,379	42,880
VIII.....	21,085	181,889	15,847	84,890	6,194	72,399	2,561	16,064
IX.....	—	—	1,094	5,944	968	16,634	—	—
X.....	11,171	111,132	19,414	170,670	7,907	61,206	3,494	35,450
XI.....	102,103	208,929	65,308	215,232	46,282	163,377	5,800	8,976
XII.†.....	} 4,417	26,695	2,130	10,651	970	5,840	—	—
XIII.†.....								
XIV.....	203,361	876,413	32,912	170,806	21,112	102,219	10,175	30,861
XV.....	6,413	61,714	33,460	137,903	3,022	18,036	33,617	176,272
XVI.....	53,629	1,339,970	53,177	634,312	33,465	527,816	11,376	134,963
XVII.....	11,790	27,398	3,219	42,468	2,936	31,336	‡ 917	‡6,209
TOTAL.....£	1,100,201	7,061,958	699,634	3,364,398	360,560	2,152,640	138,858	663,165

* For description of industry, see § 1 (3), or other similar tables in this Chapter.
† Classes combined in respect of industrial centres, owing to small number of establishments concerned. ‡ Includes Classes XII and XIII.

(v) WAGES PAID TO EACH CLASS OF EMPLOYEE, 1915-16 TO 1923-24.

YEAR.	CAPE.		NATAL.		TRANSVAAL.		ORANGE FREE STATE.		UNION.	
	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.
	£	£	£	£	£	£	£	£	£	£
1915-16.	516,424	2,484,898	316,104	1,373,090	496,913	3,373,776	65,753	285,899	1,395,194	7,517,663
1916-17.	617,528	2,927,135	382,406	1,605,770	662,486	3,838,090	79,065	324,214	1,741,485	8,695,209
1917-18.	655,727	3,389,961	389,965	1,865,361	764,542	4,696,117	76,388	389,639	1,886,622	10,341,078
1918-19.	819,848	3,927,748	494,614	2,226,547	970,239	5,440,698	96,586	499,368	2,381,287	12,094,361
1919-20.	1,006,912	5,351,988	586,548	3,016,154	1,197,710	7,126,701	110,397	722,680	2,901,567	16,217,523
1920-21.	1,158,687	6,212,658	656,066	3,543,443	1,268,777	8,087,182	146,679	832,597	3,230,209	18,675,880
1921-22.	1,195,098	5,784,712	615,872	3,319,190	1,222,311	7,147,763	135,448	709,434	3,168,729	16,961,099
1922-23.	1,159,764	5,627,404	598,500	3,042,386	1,190,102	6,744,861	145,503	677,814	3,093,869	16,092,465
1923-24.	1,168,125	5,960,007	601,834	3,242,335	1,185,828	7,549,364	132,574	665,139	3,088,361	17,416,845

10. **Value of Materials Used in Factories.**—Particulars are given hereunder, in tables (i) and (ii) and (iii), as to the value of materials used in factories of each class of industry, and in tables (iii) and (iv) the value of materials the product of South Africa, included in the value stated in table (i). Difficulty has been experienced in supplying information represented by tables (iii) and (iv), which can only be regarded as roughly approximate.

(i) VALUE OF MATERIALS USED IN FACTORIES, 1915–16 TO 1923–24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915–16	8,872,956	5,716,475	6,524,274	1,201,882	22,315,587
1916–17	10,816,587	6,890,807	8,715,231	1,601,323	28,023,948
1917–18	13,386,378	7,678,167	11,501,421	1,682,375	34,248,341
1918–19	15,268,334	9,656,203	14,059,934	2,035,209	41,019,680
1919–20	19,777,559	13,445,183	17,698,468	2,930,046	53,851,256
1920–21	22,113,497	15,171,314	17,885,386	2,795,074	57,965,271
1921–22	15,829,883	10,986,776	13,642,887	2,363,895	42,823,441
1922–23	13,371,830	8,559,429	13,122,218	2,086,326	37,139,803
1923–24	13,648,062	9,833,778	13,892,496	1,829,082	39,203,418

(ii) VALUE OF MATERIALS USED IN FACTORIES IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923–24.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Material	324,910	242,470	216,731	9,788	964,811
II. Stone, Clay, etc.	220,007	45,530	35,051	1,466	472,934
III. Wood	351,187	269,149	184,834	58,761	1,045,789
IV. Metals, Engineering, etc.	3,125,898	740,653	857,504	61,971	6,152,926
V. Food, Drink, etc.	3,492,842	3,522,738	1,975,982	629,035	17,083,903
VI. Clothing, Textiles, etc.	539,955	366,562	215,194	34,916	1,383,167
VII. Books, Printing, etc.	427,461	346,144	82,293	36,131	1,033,382
VIII. Vehicles, etc.	195,491	99,326	54,362	12,342	652,122
IX. Shipbuilding, etc.	—	3,199	14,323	—	19,352
X. Furniture, etc.	241,972	303,533	91,227	69,696	759,099
XI. Chemicals, etc.	1,120,622	771,781	968,992	64,921	3,100,476
* XII. Surgical Instruments, etc.	} 25,688	7,468	7,505	—	48,207
* XIII. Jewellery, etc.					
XIV. Heat, Light, and Power	742,015	117,081	82,600	25,423	1,071,782
XV. Leather and Leatherware	163,714	376,633	28,626	532,770	1,679,436
XVI. Building and Contracting	1,516,904	636,522	628,532	160,205	3,643,972
XVII. Other Industries	34,115	15,112	8,035	†1,848	92,060
TOTAL £	12,522,781	7,863,901	5,451,791	1,699,273	39,203,418

* Classes combined in industrial centres, owing to small number of establishments concerned.
† Includes Classes XII and XIII.

(iii) VALUE OF SOUTH AFRICAN MATERIALS INCLUDED IN TABLE (i), 1915–16 TO 1923–24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915–16	3,838,442	2,862,789	2,458,852	864,690	10,024,773
1916–17	5,066,596	3,514,859	3,959,316	1,190,891	13,731,662
1917–18	6,693,641	4,038,740	5,888,547	1,213,166	17,834,094
1918–19	8,351,396	5,661,412	6,345,485	1,486,967	21,845,260
1919–20	10,470,454	7,490,891	8,634,645	1,957,951	28,553,941
1920–21	9,119,312	8,240,213	7,410,842	1,681,927	26,452,294
1921–22	6,456,012	5,743,477	5,029,404	1,416,371	18,645,264
1922–23	5,740,715	4,675,695	5,091,953	1,174,401	16,682,764
1923–24	6,075,693	5,704,444	5,206,038	1,247,785	18,233,960

(iv) VALUE OF SOUTH AFRICAN MATERIALS INCLUDED IN TABLE (ii), 1923–1924.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Material	323,451	236,839	202,790	8,152	918,075
II. Stone, Clay, etc	127,220	19,963	18,153	534	214,974
III. Wood	150,607	68,454	20,052	4,308	357,909
IV. Metals, Engineering, etc	404,265	215,858	58,413	4,007	958,561
V. Food, Drink, etc	2,821,041	2,067,740	1,393,852	205,852	13,001,298
VI. Clothing, Textiles, etc	18,119	29,274	7,154	741	64,762
VII. Books, Printing, etc	3,461	2,779	68	65	6,970
VIII. Vehicles, etc	38,070	21,325	6,098	860	139,582
IX. Shipbuilding, etc	—	100	152	—	252
X. Furniture, etc	10,697	18,204	11,868	4,767	48,222
XI. Chemicals, etc	137,945	170,796	465,662	7,894	885,924
* XII Surgical Instruments, etc	} 12,113	1,281	4,674	—	23,398
* XIII. Jewellery, etc					
XIV. Heat, Light, and Power	34,776	28,114	16,706	12,567	114,315
XV. Leather and Leatherware	124,212	266,412	13,759	356,267	1,179,384
XVI. Building and Contracting	42,721	102,840	96,778	6,512	302,398
XVII. Other Industries	17,083	10	—	†500	17,936
TOTAL £	4,265,781	3,249,989	2,316,179	613,026	18,233,960

* Classes combined in industrial centres, owing to small number of establishments concerned.
† Includes Classes XII and XIII.

11. **Gross Value of Factory Production.**—The tables given hereunder show the gross value of production in each class of industry in each Province, and in certain important industrial centres. It must be noted that this return in certain respects represents duplicated values. For example, in such an industry as the manufacture of boots and shoes is included again the value of leather produced by tanneries. Every effort was taken, however, to preclude any duplication of value in respect of any particular industry. The average output per employee, per European employee, and per head of the mean European population, is also given.

(i) GROSS VALUE OF FACTORY PRODUCTION, 1915–16 TO 1923–24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915–16	14,616,427	9,665,505	14,266,643	1,886,307	40,434,882
1916–17	18,042,980	11,284,394	17,638,888	2,491,150	49,457,412
1917–18	22,647,248	13,070,557	21,781,402	2,623,904	60,123,111
1918–19	25,544,312	15,796,411	26,373,345	3,220,030	70,934,098
1919–20	33,157,026	21,978,325	33,225,833	4,552,660	92,913,844
1920–21	35,231,715	23,790,541	34,646,876	4,638,778	98,307,910
1921–22	28,301,757	18,519,810	28,674,085	3,950,647	79,446,299
1922–23	26,562,111	16,328,711	27,952,789	3,642,681	74,486,292
1923–24	27,592,005	18,400,153	30,371,462	3,425,728	79,789,348

(ii) GROSS VALUE OF FACTORY PRODUCTION OF EACH CLASS IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923–24.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Material	346,657	309,752	247,937	19,029	1,210,623
II. Stone, Clay, etc	1,039,172	236,162	111,417	31,505	2,624,567
III. Wood	633,179	524,036	302,638	114,573	1,907,412
IV. Metals, Engineering, etc	7,138,757	1,732,280	1,828,940	158,490	14,449,211
V. Food, Drink, etc	5,091,305	6,042,115	2,761,531	1,012,241	26,084,683
VI. Clothing, Textiles, etc	1,149,037	809,162	391,687	86,306	2,914,995
VII. Books, Printing, etc	1,430,324	1,207,941	884,731	145,756	3,879,985
VIII. Vehicles, etc	493,697	248,166	168,835	35,345	1,708,345
IX. Shipbuilding, etc	—	9,108	36,651	—	48,299
X. Furniture, etc	457,300	639,248	195,512	122,688	1,559,179
XI. Chemicals, etc	1,948,547	1,532,629	1,697,147	98,370	5,586,710
* XII. Surgical Instruments, etc	} 82,348	26,075	16,547	—	154,550
* XIII. Jewellery, etc					
XIV. Heat, Light, and Power	3,761,008	690,682	416,450	130,982	5,807,171
XV. Leather and Leatherware	396,042	670,316	74,830	942,651	2,877,223
XVI. Building and Contracting	3,523,774	1,478,622	1,422,520	349,883	8,461,162
XVII. Other Industries	98,649	195,656	151,934	†12,390	515,233
TOTAL £	27,499,796	16,351,950	10,209,307	3,260,209	79,789,348
	£	£	£	£	£
Average Value of Output per Employee	425	496	460	429	436
Average Value of Output per European Employee	1,120	1,341	1,419	1,002	1,205
Average Value of Output per Head of Mean European Population	83	94	157	114	51

* Classes combined in industrial centres, owing to small number of establishments concerned.
† Includes Classes XII and XIII.

12. **Value Added in Process of Manufacture.**—By deducting from the gross value of the output of factories the cost of materials used, is obtained the value added in the process of manufacture, which practically eliminates any such duplication of values as that referred to in the preceding paragraph. The following tables give returns of such value in the case of each class of industry in each Province, and in certain important industrial centres. Particulars are also given in table (ii) as to the average value added, (*a*) per employee, (*b*) per European employee, and (*c*) per head of the European population.

(i) VALUE ADDED IN PROCESS OF MANUFACTURE IN FACTORIES, 1915–16 TO 1923–24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
1915–16	5,743,471	3,949,030	7,742,369	684,425	18,119,295
1916–17	7,226,393	4,393,587	8,923,657	889,827	21,433,464
1917–18	9,260,870	5,392,390	10,279,981	941,529	25,874,770
1918–19	10,275,978	6,140,208	12,313,411	1,184,821	29,914,418
1919–20	13,379,467	8,533,142	15,527,365	1,622,614	39,062,588
1920–21	13,118,218	8,619,227	16,761,490	1,843,704	40,342,639
1921–22	12,471,874	7,533,034	15,031,198	1,586,752	36,622,858
1922–23	13,190,281	7,769,282	14,830,571	1,556,355	37,346,489
1923–24	13,943,943	8,566,375	16,478,966	1,596,646	40,585,930

(ii) VALUE ADDED IN PROCESS OF MANUFACTURE IN FACTORIES, IN CERTAIN INDUSTRIAL CENTRES AND IN THE UNION, 1923–24.

Class of Industry.	Southern Transvaal.	Cape Western.	Durban and Pinetown.	Port Elizabeth.	Union.
	£	£	£	£	£
I. Raw Material	21,747	67,282	31,206	9,241	245,812
II. Stone, Clay, etc.	819,165	190,632	76,366	30,039	2,151,633
III. Wood	281,992	254,887	117,804	55,812	861,623
IV. Metals, Engineering, etc.	4,012,859	991,627	971,436	96,519	8,296,285
V. Food, Drink, etc.	1,598,463	2,519,377	785,549	383,206	9,000,780
VI. Clothing, Textiles, etc.	609,082	442,600	176,493	51,390	1,531,828
VII. Books, Printing, etc.	1,002,863	861,797	302,438	109,625	2,846,603
VIII. Vehicles, etc.	298,206	148,840	114,473	23,003	1,056,223
IX. Shipbuilding, etc.	—	5,909	22,328	—	28,947
X. Furniture, etc.	215,328	335,715	104,285	52,992	800,080
XI. Chemicals, etc.	827,925	760,848	728,155	33,449	2,486,234
* XII. Surgical Instruments, etc.	56,660	18,607	9,042	—	106,343
* XIII. Jewellery, etc.					
XIV. Heat, Light, and Power	3,018,993	573,601	333,850	105,559	4,735,389
XV. Leather and Leatherware	142,328	293,683	46,204	409,881	1,197,787
XVI. Building and Contracting	2,006,870	842,100	793,988	189,678	4,817,190
XVII. Other Industries	64,534	180,544	143,899	†10,542	423,173
TOTAL £	14,977,015	8,488,049	4,757,516	1,560,936	40,585,930
	£	£	£	£	£
Average Value Added per Employee	232	257	214	206	222
Average Value Added per European Employee	610	696	661	480	613
Average Value Added per Head of Mean European Population	44	48	71	53	26

* Classes combined in industrial centres, owing to small number of establishments concerned.
† Includes Classes XII and XIII.

13. **International Comparison of Factory Returns.**—Some interest and value attach to the comparison represented in the following table as to certain values and other particulars in regard to factory production in the Union, Canada, New Zealand and the Commonwealth of Australia. The basis of returns undoubtedly differs in the various Dominions, economic conditions vary greatly, and the elements of the population are dissimilar, so that the comparisons must not in all respects be taken to be exact. Nevertheless, they afford some indication of the relative importance of manufacturing industries in the countries mentioned.

INTERNATIONAL COMPARISON OF FACTORY RETURNS.

Heading.	Canada (1923).	New Zealand (1923–24).	Commonwealth of Australia (1923–24).	Union of South Africa (1923–24).
Value of Land and Buildings.....£	324,206,320	19,289,484	82,562,061	20,965,920
Value of Machinery and Plant.....£	120,774,222	26,208,570	99,552,539	30,432,143
Motive Power—				
Electricity.....H.P.	1,315,828	62,221	344,085	176,729
Steam.....H.P.	827,870	113,894	633,683	548,967
Other (Oil, Gas, Water, etc.).....H.P.	2,933,758	31,524	76,514	22,126
TOTAL.....H.P.	5,077,456	207,639	1,054,282	747,822
Cost of Fuel and Light.....£	12,069,647	—	10,296,440	3,326,947
Employees—Male.....No.	408,606	63,828	322,957	168,637
,, Female.....No.	125,299	13,833	107,033	14,240
TOTAL.....No.	533,905	77,661	429,990	182,877
	£	£	£	£
Total Wages Paid.....	117,763,458	14,573,441	77,278,265	20,505,206
Average Wage per Employee.....	221	188	*188	*116
Value of Materials Used.....	302,093,935	47,027,033	197,038,726	39,203,418
Value (Gross) of Production.....	571,491,937	76,996,397	348,577,583	79,789,348
Value Added in Process of Manufacture...	269,398,001	29,969,364	151,538,857	40,585,930
	£	£	£	£
Value of Production per Head of Employees	1,070	991	811	436
Value of Production per Head of Mean European Population.....	63	60	61	50
Value Added per Head of Employees.....	505	386	352	222
Value added per Head of European Population.....	30	23	26	26

* Excludes working proprietors.

14. **Monthly Index of Industrial Activity.**—Commencing in July, 1922, the Statistics Office initiated the compilation of a monthly index of industrial activity in consultation and co-operation with various manufacturers' associations. The data are obtained from returns rendered monthly by a number of selected establishments in the four principal industrial centres in the Union, viz., the Cape Peninsula and adjoining areas, Port Elizabeth, Durban and adjoining areas, and the Witwatersrand (including Pretoria); and the figures show, by comparison with the results of a base year, the relative condition of employment and activity in each of the principal classes of industry in the different centres concerned. Publication is effected through the medium of the *Monthly Bulletin of Union Statistics.*

§ 3. Individual Industries.

1. **Principal Manufacturing Industries.**—The tables given hereunder furnish particulars of the principal manufacturing industries of the Union. Certain important industries, owing to their small number, have been regrouped in order to avoid disclosure of their identity and operations.

PARTICULARS AS TO PRINCIPAL INDIVIDUAL MANUFACTURING INDUSTRIES 1915-16 TO 1923-24.

YEAR.	Number of Factories	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Number of Employees.	Amount of Salaries and Wages Paid.	Cost of Fuel, Light, and Power.	Value of Materials Used.	Value of Output.	Value Added to Materials during Process of Manufacture.
BACON AND HAM CURING ESTABLISHMENTS.									
		£1,000.	£1,000.		£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1915–16.....	11	33	17	154	11	3	88	131	44
1916–17.....	14	41	20	221	15	3	149	202	53
1917–18.....	17	50	26	308	23	4	279	378	99
1918–19.....	22	90	43	491	34	6	397	525	128
1919–20.....	23	121	55	502	41	10	561	716	155
1920–21.....	22	112	54	453	41	10	508	596	88
1921–22.....	24	101	61	442	41	9	372	469	97
1922–23.....	20	93	50	378	34	6	332	440	108
1923–24.....	17	87	52	375	36	7	338	449	111

PARTICULARS AS TO PRINCIPAL INDIVIDUAL MANUFACTURING INDUSTRIES, 1915–16 TO 1923–24—*continued.*

YEAR.	Number of Factories	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Number of Employees.	Amount of Salaries and Wages Paid.	Cost of Fuel, Light, and Power.	Value of Materials Used.	Value of Output.	Value Added to Materials during Process of Manufacture.
BAKERIES, BREAD, AND BISCUIT FACTORIES.									
		£1,000.	£1,000.		£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1915–16.....	176	364	139	2,730	218	31	1,468	2,024	556
1916–17.....	241	432	179	3,291	246	36	1,887	2,558	671
1917–18.....	262	458	161	3,620	267	37	2,192	2,960	768
1918–19.....	287	470	166	3,909	317	46	2,382	3,262	880
1919–20	312	545	205	3,996	363	56	3,097	4,185	1,089
1920–21.....	333	592	233	4,170	407	68	3,351	4,670	1,319
1921–22.....	335	634	252	4,105	395	68	2,313	3,517	1,204
1922–23.....	346	672	266	4,137	386	65	2,148	3,339	1,191
1923–24.....	353	692	262	4,265	381	66	2,145	3,380	1,235
BOOT AND SHOE FACTORIES AND REPAIRING ESTABLISHMENTS.									
1915–16.....	58	58	54	1,662	99	3	324	504	180
1916–17.....	104	91	87	2,388	129	4	499	727	228
1917–18.....	120	108	95	2,644	161	5	636	966	329
1918–19.....	138	153	142	3,399	239	6	865	1,292	427
1919–20.....	147	192	193	3,630	302	9	1,116	1,675	558
1920–21.....	146	210	266	2,954	278	11	779	1,191	412
1921–22.....	148	236	241	3,283	305	11	738	1,251	513
1922–23.....	137	260	275	4,066	358	14	802	1,513	711
1923–24.....	131	260	275	4,432	400	16	925	1,681	756
BREWERIES (INCLUDING NATIVE BEER BREWERIES) AND MALT WORKS									
1915–16.....	21	530	499	1,845	175	24	322	1,162	840
1916–17.....	21	572	395	1,917	182	25	346	963	617
1917–18.....	78*	678	365	2,020	193	33	419	1,173	754
1918–19.....	85*	645	378	2,261	213	40	565	1,394	829
1919–20.....	99	658	477	2,147	215	43	688	1,895	1,207
1920–21.....	90	640	718	2,123	234	46	801	2,061	1,260
1921–22.....	94	635	708	1,847	218	48	523	1,788	1,265
1922–23.....	93	629	674	1,616	200	41	443	1,610	1,167
1923–24.....	89	659	547	1,566	187	35	396	1,467	1,071
BRICK, TILE, EARTHENWARE, AND POTTERY WORKS.									
1915–16.....	97	247	186	3,230	116	41	22	250	228
1916–17.....	117	322	231	4,357	144	55	80	326	246
1917–18.....	113	261	241	4,332	165	46	19	405	386
1918–19.....	122	297	246	5,054	218	71	42	547	505
1919–20.....	169	356	293	6,822	323	105	79	742	663
1920–21.....	181	398	398	7,626	376	132	56	882	826
1921–22.....	178	365	386	7,144	353	132	41	798	757
1922–23.....	175	365	368	7,338	365	123	56	835	779
1923–24.....	177	356	368	7,760	380	139	62	916	854
BRUSH AND BROOM FACTORIES.									
1915–16.....	7	9	2	389	12	—	33	53	20
1916–17.....	7	10	2	509	17	1	48	81	33
1917–18.....	7	17	4	722	20	—	54	87	33
1918–19.....	5	20	4	666	26	—	57	99	43
1919–20.....	6	21	5	591	32	1	63	121	58
1920–21.....	7	28	5	533	30	1	60	100	41
1921–22.....	6	19	3	423	21	1	41	74	33
1922–23.....	6	24	4	397	22	1	43	83	40
1923–24.....	6	26	4	393	21	1	48	87	39

* Including Native Beer Breweries on Mines.

PARTICULARS AS TO PRINCIPAL INDIVIDUAL MANUFACTURING INDUSTRIES, 1915–16 TO 1923–24—*continued.*

YEAR.	Number of Factories	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Number of Employees.	Amount of Salaries and Wages Paid.	Cost of Fuel, Light, and Power.	Value of Materials Used.	Value of Output.	Value Added to Materials during Process of Manufacture.
BUTTER AND CHEESE FACTORIES.									
		£1,000.	£1,000.		£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1915–16.....	59	152	100	660	44	8	483	607	124
1916–17.....	86	201	120	936	62	12	761	999	238
1917–18.....	124	217	138	1,129	76	13	931	1,220	289
1918–19.....	126	316	206	1,291	109	18	1,143	1,484	341
1919–20.....	121	296	194	1,327	116	21	1,147	1,498	351
1920–21.....	116	330	231	1,306	122	24	1,250	1,641	391
1921–22.....	125	393	243	1,336	132	28	988	1,363	375
1922–23.....	123	412	245	1,309	132	26	852	1,224	372
1923–24.....	127	447	283	1,356	131	24	956	1,343	387
CLOTHING FACTORIES, TAILORING, AND DRESSMAKING ESTABLISHMENTS.									
1915–16.....	358	348	24	3,995	330	6	454	1,003	549
1916–17.....	515	483	31	5,020	400	8	683	1,331	648
1917–18.....	580	490	33	5,518	453	9	916	1,736	820
1918–19.....	590	577	41	5,923	524	10	1,218	2,220	1,002
1919–20.....	623	701	47	6,282	652	12	1,517	2,800	1,282
1920–21.....	591	681	48	5,580	656	13	1,369	2,497	1,128
1921–22.....	596	721	50	5,228	604	13	1,034	2,078	1,044
1922–23.....	580	711	53	5,497	578	13	991	2,009	1,118
1923–24.....	570	738	48	5,466	554	13	1,006	2,019	1,013
COACH AND WAGON WORKS.									
1915–16.....	208	209	77	2,525	213	11	266	597	331
1916–17.....	260	253	82	2,972	246	13	310	686	376
1917–18.....	318	293	93	3,285	287	16	389	867	479
1918–19.....	326	316	99	3,347	299	19	396	909	513
1919–20.....	345	324	114	3,515	366	22	521	1,103	583
1920–21.....	346	343	104	3,167	367	22	472	1,045	573
1921–22.....	349	330	103	2,803	303	20	321	785	464
1922–23.....	340	319	95	2,792	279	19	303	747	444
1923–24.....	332	311	91	2,818	285	19	323	775	452
COOPERAGES AND PACKING-CASE WORKS.									
1915–16.....	26	37	11	378	22	1	71	104	33
1916–17.....	28	51	14	488	31	2	134	180	46
1917–18.....	42	76	41	846	43	3	157	266	109
1918–19.....	53	116	32	934	59	5	262	381	120
1919–20.....	65	102	52	1,173	94	7	242	412	170
1920–21.....	63	117	56	1,048	88	6	211	343	132
1921–22.....	49	100	47	908	57	5	124	210	86
1922–23.....	38	58	33	578	42	2	70	145	75
1923–24.....	46	88	45	876	67	4	157	322	165
ELECTRIC LIGHT AND POWER PLANTS.									
1915–16.....	79	1,620	7,021	3,556	465	608	117	2,542	2,425
1916–17.....	81	1,668	8,128	3,844	513	677	152	2,781	2,629
1917–18.....	124*	1,721	8,998	4,543	629	835	392	2,952	2,560
1918–19.....	115	1,826	9,126	4,939	717	900	195	3,173	2,978
1919–20.....	134	1,851	10,006	5,336	871	1,048	275	3,435	3,159
1920–21.....	140	1,739	10,357	5,691	1,027	985	294	3,678	3,385
1921–22.....	142	1,827	11,165	6,276	1,066	1,286	392	3,851	3,459
1922–23.....	149	1,884	11,708	6,149	909	1,202	406	3,797	3,391
1923–24.....	147	2,022	12,515	6,758	938	1,378	323	4,053	3,730

* Including certain Power Plants on Mines not previously enumerated.

PARTICULARS AS TO PRINCIPAL INDIVIDUAL MANUFACTURING INDUSTRIES, 1915–16 TO 1923–24—*continued.*

Year.	Number of Factories	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Number of Employees.	Amount of Salaries and Wages Paid.	Cost of Fuel, Light, and Power.	Value of Materials Used.	Value of Output.	Value Added to Materials during Process of Manufacture.
GALVANIZED WARE, TINWARE, AND STEEL TRUNK FACTORIES.									
		£1,000.	£1,000.		£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1915–16.....	40	56	31	1,043	66	3	104	228	124
1916–17.....	35	52	38	1,060	63	3	146	266	120
1917–18.....	51	73	54	1,185	77	3	203	372	168
1918–19.....	52	75	53	1,106	95	4	217	393	176
1919–20.....	54	82	75	1,156	103	4	245	446	200
1920–21.....	54	90	76	1,193	119	6	284	487	203
1921–22.....	56	98	90	1,124	110	5	187	371	184
1922–23.....	54	98	91	1,199	116	6	195	405	210
1923–24.....	56	111	106	1,431	126	6	232	455	223
GRAIN MILLS.									
1915–16.....	562	763	817	3,940	213	70	4,900	5,627	727
1916–17.....	667	825	837	4,225	237	84	6,154	7,274	1,119
1917–18.....	743	872	878	4,464	261	124	7,684	8,707	1,023
1918–19.....	638	932	946	4,588	330	115	8,806	10,121	1,315
1919–20.....	691	1,046	1,048	4,855	351	137	11,079	12,631	1,552
1920–21.....	705	1,089	1,142	4,973	360	136	11,032	12,133	1,101
1921–22.....	692	1,120	1,194	4,841	362	145	6,833	7,911	1,078
1922–23.....	686	1,099	1,205	4,595	335	131	6,531	7,791	1,260
1923–24.....	687	1,143	1,219	4,547	337	132	6,951	8,190	1,239
JAM FACTORIES, FRUIT PRESERVING WORKS, AND SWEET FACTORIES.									
1915–16.....	35	118	65	1,905	94	10	500	750	249
1916–17.....	48	141	74	2,536	114	13	614	952	338
1917–18.....	51	153	71	2,793	149	14	792	1,332	540
1918–19.....	59	194	92	2,801	191	17	941	1,538	597
1919–20.....	71	245	102	3,202	250	27	1,324	2,132	809
1920–21.....	71	292	176	3,014	250	24	1,307	1,816	510
1921–22.....	74	332	229	3,004	240	25	954	1,484	530
1922–23.....	74	354	249	3,200	249	24	769	1,338	569
1923–24.....	78	359	249	3,383	262	23	838	1,489	651
LIME WORKS.									
1915–16.....	32	58	42	952	36	18	25	97	71
1916–17.....	40	88	89	1,433	55	17	64	151	87
1917–18.....	41	86	106	1,383	52	18	80	183	104
1918–19.....	30	89	109	1,474	61	21	79	205	126
1919–20.....	31	85	127	1,695	81	24	93	247	154
1920–21.....	33	79	126	1,686	85	25	97	255	159
1921–22.....	36	78	154	1,437	68	38	58	211	153
1922–23.....	40	78	148	1,636	72	20	51	247	196
1923–24.....	39	82	145	1,549	69	19	50	225	175
PRINTING AND PUBLISHING ESTABLISHMENTS.									
1915–16.....	222	609	544	4,908	647	19	417	1,329	912
1916–17.....	248	642	593	5,386	726	21	584	1,873	1,289
1917–18.....	270	645	600	5,633	792	21	733	2,212	1,479
1918–19.....	265	728	616	6,070	899	24	948	2,596	1,648
1919–20.....	273	750	667	6,572	1,153	34	1,245	3,419	2,174
1920–21.....	276	840	766	6,693	1,435	37	1,460	4,114	2,654
1921–22.....	281	930	916	6,492	1,423	40	1,206	3,875	2,669
1922–23.....	284	990	956	6,510	1,397	40	972	3,633	2,661
1923–24.....	290	1,042	1,022	6,943	1,458	41	939	3,679	2,740

PARTICULARS AS TO PRINCIPAL INDIVIDUAL MANUFACTURING INDUSTRIES, 1915–16 TO 1923–24—*continued.*

Year.	Number of Factories	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Number of Employees.	Amount of Salaries and Wages Paid.	Cost of Fuel, Light, and Power.	Value of Materials Used.	Value of Output.	Value Added to Materials during Process of Manufacture.
		£1,000.	£1,000.		£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
SALT PANS AND REFINERIES.									
1918–19.....	44	180	52	1,136	48	9	47	193	146
1919–20.....	47	205	67	1,175	57	9	54	199	145
1920–21.....	45	238	58	1,034	50	9	39	163	124
1921–22.....	47	207	59	958	44	7	32	149	117
1922–23.....	47	208	58	818	41	7	28	116	88
1923–24.....	45	202	59	795	37	6	26	113	87
SAWMILLS.									
1915–16.....	56	151	108	1,172	93	7	316	494	178
1916–17.....	109	262	182	2,322	164	13	496	768	272
1917–18.....	125	278	199	2,794	202	14	567	943	376
1918–19.....	127	288	205	2,776	223	15	907	1,371	464
1919–20.....	134	355	218	3,237	286	21	839	1,364	525
1920–21.....	147	384	256	3,745	349	24	910	1,527	617
1921–22.....	135	351	218	2,712	255	17	615	1,025	410
1922–23.....	129	436	207	2,441	205	17	540	919	379
1923–24.....	70	253	161	1,877	162	12	443	713	270
SOAP AND CANDLE FACTORIES.									
1915–16.....	16	436	486	1,784	150	24	1,147	1,735	588
1916–17.....	16	818	149	1,986	176	24	1,187	1,763	576
1917–18.....	18	843	172	2,369	199	30	1,751	2,348	597
1918–19.....	17	446	603	2,146	192	30	1,750	2,260	510
1919–20.....	18	471	618	2,253	223	32	2,312	3,010	698
1920–21.....	20	535	661	1,937	225	31	1,865	2,316	451
1921–22.....	22	574	691	1,951	206	29	1,394	1,972	578
1922–23.....	26	590	705	1,933	212	27	1,037	1,927	890
1923–24.....	28	606	713	1,933	208	25	1,066	1,865	799
TANNERIES.									
1915–16.....	19	79	40	799	55	3	339	476	136
1916–17.....	23	88	46	920	63	3	459	606	147
1917–18.....	25	119	53	1,245	88	5	681	964	282
1918–19.....	28	153	68	1,409	101	6	741	1,006	265
1919–20.....	31	164	82	1,579	122	9	1,017	1,394	377
1920–21.....	30	173	100	1,373	116	9	564	832	268
1921–22.....	27	177	116	1,335	128	12	430	687	257
1922–23.....	24	174	131	1,472	132	14	483	738	255
1923–24.....	23	149	136	1,540	140	15	600	883	283
TOBACCO, CIGAR, CIGARETTE, AND SNUFF FACTORIES.									
1915–16.....	58	159	91	1,941	94	5	506	1,051	545
1916–17.....	67	199	91	2,241	116	5	560	1,212	653
1917–18.....	63	205	86	2,302	125	5	647	1,417	770
1918–19.....	60	223	90	2,562	144	6	782	1,538	756
1919–20.....	66	264	104	2,662	185	8	990	1,951	961
1920–21.....	64	285	149	3,010	281	9	1,019	2,371	1,352
1921–22.....	61	322	221	2,403	267	10	997	2,030	1,033
1922–23.....	62	328	188	2,526	236	10	966	2,039	1,073
1923–24.....	58	315	196	2,605	238	8	890	2,052	1,162
WOOL WASHERIES.									
1915–16.....	6	15	19	509	19	4	17	66	49
1916–17.....	7	34	30	807	35	6	22	113	91
1917–18.....	10	47	40	981	39	12	32	171	140
1918–19.....	11	64	62	1,780	52	15	55	203	148
1919–20.....	13	76	98	2,113	77	21	62	244	186
1920–21.....	14	88	141	1,330	58	13	35	142	107
1921–22.....	14	95	138	1,161	64	16	38	161	123
1922–23.....	12	100	140	941	51	14	25	119	94
1923–24.....	11	94	128	738	43	8	15	73	58

2. **Materials Used and Articles Produced.**—Particulars are given hereunder of certain materials used or treated, and of articles produced in certain industries during the year 1923–24, with comparative figures for previous years :—

(i) BACON AND HAM CURING ESTABLISHMENTS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb.	£
Pigs, Cattle, and Sheep	9,989,423	330,273	10,088,272	292,908	10,578,113	292,955
Pork	588,006	13,453	446,098	5,454	298,090	9,970
Beef	422,644	6,190	944,241	11,648	1,067,900	12,155
Mutton	—	—	—	—	—	—
Materials Used in Curing	—	6,423	—	7,256	—	6,274
Materials Used in Packing	—	7,001	—	7,522	—	7,492
All Other Materials	—	9,050	—	7,411	—	9,211
TOTAL	—	372,390	—	332,199	—	338,057
ARTICLES MANUFACTURED.						
	lb.	£	lb.	£	lb.	£
Bacon and Ham	5,691,144	377,446	5,700,850	342,607	5,670,556	327,827
Lard	604,623	22,236	615,699	25,109	794,044	34,414
Polonies and Sausages	1,741,075	52,888	1,861,690	57,608	2,320,218	68,619
Other Articles prepared from Pork, Beef, Mutton, and Poultry	362,095	12,902	135,625	12,236	219,812	15,032
All other products	—	3,111	—	2,445	—	2,952
TOTAL	—	468,583	—	440,005	—	448,844

(ii) BAKERIES, BREAD AND BISCUIT FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	Ton.	£	Ton.	£	Ton.	£
Flour, South African	44,188	1,058,449	47,198	965,664	45,803	898,558
„ Imported	22,294	518,681	24,730	492,330	27,093	509,000
Meal, Boer or Wheat, etc.	8,752	175,407	10,552	175,115	10,822	187,739
„ Maize	1,801	15,704	2,191	19,384	1,969	17,038
Sugar	2,524	81,582	2,616	76,027	2,907	91,176
	100 lb.		100 lb.		100 lb.	
Fats (including Butter and Margarine)	24,805	149,804	24,292	137,135	26,292	153,037
Eggs	—	96,799	—	87,585	—	90,273
Fruit	—	49,985	—	43,984	—	43,708
Other ingredients	—	112,509	—	109,360	—	109,746
Packing Materials	—	54,324	—	41,832	—	44,279
TOTAL	—	2,313,244	—	2,148,416	—	2,144,554
ARTICLES MANUFACTURED.						
	lb.	£	lb.	£	lb.	£
Bread	177,431,499	2,566,924	197,671,047	2,423,708	202,393,803	2,436,705
Biscuits	9,186,290	393,702	8,499,195	348,591	8,824,834	368,396
Cakes	7,792,251	490,490	8,768,573	475,697	9,268,533	486,252
Other Articles	—	66,258	—	90,742	—	88,590
TOTAL	—	3,517,374	—	3,338,738	—	3,374,943

(iii) BOOT AND SHOE FACTORIES AND REPAIRING ESTABLISHMENTS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Leather—By Weight :—						
South African..... lb.	4,055,386	354,018	4,759,401	371,073	5,436,477	402,441
Imported..... .. .. „	27,238	4,533	93,974	10,032	175,084	15,160
Leather—By Measure :—						
South African.....Sq.ft.	1,734,119	111,395	2,518,051	116,512	2,363,483	128,804
Imported..... „	1,213,516	120,147	1,996,178	149,461	2,985,798	188,366
Uppers and Cut Soles Purchased :—						
South African.....	—	9,871	—	5,110	—	9,186
Imported.....	—	12,145	—	5,254	—	2,828
Stains and Polish.....	—	6,591	—	6,620	—	7,627
Thread, Eyelets, Nails, and other Materials.....	—	94,548	—	108,620	—	135,910
Packing Materials.....	—	25,174	—	28,948	—	35,235
TOTAL.....	—	738,422	—	801,630	—	925,557
ARTICLES MANUFACTURED.						
		£		£		£
Boots and Shoes..... Pairs.	1,572,204	1,024,504	2,115,433	1,320,570	2,351,124	1,445,272
Slippers..... „	23,553	8,434	42,381	14,304	20,326	7,237
Veldschoens..... „	231,342	72,094	223,562	69,899	411,091	121,958
Uppers for sale as such. „	79,421	19,086	—	—	406	93
Harness and Saddlery.....	—	7,976	—	5,273	—	12,097
Other Articles Manufactured..	—	33,056	—	19,563	—	14,489
Value of Repair Work Done.	—	85,371	—	83,182	—	80,299
TOTAL.....	—	1,250,521	—	1,512,791	—	1,681,445

(iv) BREWERIES (INCLUDING NATIVE BEER BREWERIES) AND MALT WORKS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Water.....Galls.	—	7,633	—	6,247	—	6,061
Malt.....Tons.	8,287	196,379	8,035	162,111	7,721	141,446
Hops.....Tons.	135	48,677	124	38,988	121	28,801
Sugar.....Cwts.	4,150	6,534	3,948	3,875	3,881	4,131
Kaffir Corn Meal.....Tons.	10,462	74,282	12,029	90,684	12,240	91,092
Barley.....Tons.	4,726	77,998	4,739	62,773	3,774	46,638
Other Ingredients.....	—	33,725	—	26,864	—	30,726
Packing Materials (Bottles,etc.)	—	77,788	—	51,295	—	47,951
TOTAL.....	—	523,016	—	442,837	—	396,246
ARTICLES MANUFACTURED.						
		£		£		£
Ale, Beer, and Stout....Galls.	6,989,837	1,478,655	6,193,027	1,289,532	6,771,753	1,200,471
Native Beer.....Galls.	6,733,457	123,663	7,278,387	127,465	6,740,945	90,069
Brewer's Grains.....	—	11,406	—	8,667	—	8,767
Other Articles.....	—	174,363	—	184,001	—	167,619
TOTAL.....	—	1,788,087	—	1,609,665	—	1,466,926

(v) BRICK, TILE, EARTHENWARE, AND POTTERY WORKS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Materials Used (exclusive of Fuel) :—						
South African.....	—	22,980	—	39,108	—	38,360
Imported.....	—	18,355	—	16,691	—	23,279
TOTAL.....	—	41,335	—	55,799	—	61,639
ARTICLES MANUFACTURED.						
		£		£		£
Bricks, Building... No.	194,718,260	544,501	237,865,534	603,014	242,986,298	658,150
Fire Bricks..... „	2,349,282	20,562	2,106,201	16,653	3,249,249	20,848
Other..... „	1,398,494	17,098	851,303	9,922	1,048,795	13,893
Tiles..... „	5,587,765	89,008	5,897,587	89,421	7,665,017	110,018
Fire Clay and Fire Clay Ware.....	—	16,490	—	16,404	—	17,104
Earthenware*..... No.	—	81,958	—	75,729	—	70,522
Pottery.....	—	3,068	—	6,850	—	9,034
Other Articles Manufactured and Work Done.....	—	25,703	—	17,033	—	16,887
TOTAL.....	—	798,388	—	835,026	—	916,456

* Including "Sanitary Pipes and Fittings."

(vi) BRUSH AND BROOM FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Bass, Broom, Grass, Hair, Bristles, Fibre, Cane, Ostrich Feathers, and similar Materials :—						
South African.....	—	5,172	—	4,287	—	5,310
Imported.....	—	19,743	—	22,576	—	25,071
Broom Heads and Handles or Timber for same :—						
South African.....	—	5,980	—	10,515	—	9,791
Imported.....	—	3,406				
Wire, Twine, Thread, Nails, Glue, Pitch, Rosin, Oils, Varnish, Paint, and other Materials for Brushes and Brooms.....	—	5,538	—	4,831	—	4,257
Boxes, Cases, Cartons, Labels, and other Packing Materials	—	1,097	—	1,240	—	3,963
TOTAL.....	—	40,936	—	43,449	—	48,392

(vi) BRUSH AND BROOM FACTORIES—*continued.*

Heading.	1921–22.		1923–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
	Doz.	£	Doz.	£	Doz.	£
Bass Brooms	9,695	15,069	13,326	14,628	13,437	15,706
Hair Brooms	18,850	31,304	37,390	36,869	33,315	34,637
Carpet Brooms	9,796	10,933	11,873	13,862	15,416	17,670
Banister Brushes	1,338	1,668	4,167	4,400	4,077	4,269
Straw or Grass Brooms	5,864	5,354	2,716	1,587	250	117
Other Brushes and Brooms	7,969	9,826	16,733	11,309	20,050	14,463
TOTAL	—	74,154	—	82,655	—	86,862

(vii) BUTTER AND CHEESE FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Butter, Fat or Cream.....lb.	10,683,742	739,172	10,116,840	609,727	9,404,336	689,440
Milk.....gall.	5,507,270	156,739	5,540,471	156,799	5,952,119	186,338
Salt and other Preservatives.lb.	815,192	11,804	813,405	8,079	854,393	7,138
Colouring Matter and other Ingredients	—	25,945	—	26,112	—	29,184
Packing Materials	—	54,416	—	51,745	—	43,645
TOTAL	—	988,076	—	852,462	—	955,745
ARTICLES MANUFACTURED.						
	lb.	£	lb.	£	lb.	£
Butter	12,508,504	1,094,555	11,863,459	927,523	11,103,730	1,010,531
Cheese	5,135,659	224,462	5,111,611	252,931	5,455,458	272,145
Other Articles Manufactured or Produced	—	43,922	—	43,072	—	60,730
TOTAL	—	1,362,939	—	1,223,526	—	1,343,406

(viii) CLOTHING FACTORIES AND TAILORING ESTABLISHMENTS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	Yards.	£	Yards.	£	Yds.	£
Cloth for Suits, Costumes, etc.	1,337,650	686,934	1,284,196	658,913	2,359,103	722,437
Other Materials (Lining, Trimming, etc.)	—	200,175	—	201,996	—	159,076
Packing Materials	—	11,258	—	10,278	—	9,190
TOTAL	—	898,367	—	871,187	—	890,703

(viii) CLOTHING FACTORIES AND TAILORING ESTABLISHMENTS—*continued.*

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
	—	£		£		£
Suits, Trousers, Overcoats, etc.	—	1,488,603	—	1,472,899	—	1,475,284
Costumes, Dresses, Skirts, etc.	—	86,767	—	59,624	—	44,362
Other Articles Made	—	62,232	—	72,912	—	118,418
Alterations, Making-up Customers' Material, and other Work Done	—	150,621	—	142,822	—	126,743
Millinery	—	1,804	—	1,969	—	2,671
TOTAL	—	1,790,027	—	1,750,226	—	1,767,478

(ix) COACH AND WAGON WORKS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Timber :—						
South African	—	69,437	—	68,396	—	70,557
Imported	—	31,748	—	32,102	—	36,687
Wooden Parts :—						
South African	—	25,690	—	22,962	—	25,685
Imported	—	15,350	—	13,272	—	15,830
Paint, Varnish, and Oils	—	16,525	—	14,149	—	14,414
Metal and Metal Parts	—	92,353	—	93,929	—	98,359
Leather and Canvas	—	15,737	—	15,702	—	16,419
Other Materials	—	54,321	—	42,447	—	45,166
TOTAL	—	321,161	—	302,959	—	323,117
ARTICLES MANUFACTURED.						
	No.	£	No.	£	No.	£
Wagons	1,073	85,703	1,200	89,975	1,726	116,577
Trollies and Light Wagons	620	30,764	578	27,446	648	28,2322
Cape Carts and Buggies	688	32,757	729	35,957	955	46,14
Farm Carts	566	16,782	553	16,165	772	24,541
Spiders and Surreys	59	3,677	9	769	109	7,454
Other Vehicles	565	19,644	663	18,941	479	12,987
Bodies for Mechanically Propelled Vehicles	205	11,885	199	12,351	582	34,431
Other Articles and Repairs	—	584,176	—	545,116	—	508,653
TOTAL	—	785,388	—	746,720	—	775,206

(x) COOPERAGES AND PACKING CASE WORKS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Timber and Wood :—						
South African	—	56,149	—	18,276	—	30,730
Imported	—	51,706	—	43,136	—	116,294
Nails, Screws, Hoop Iron, and other Materials	—	16,124	—	8,919	—	10,461
TOTAL	—	123,979	—	70,331	—	157,485
ARTICLES MANUFACTURED.						
	No.	£	No.	£	No.	£
Kegs, Casks	4,477	11,006	4,092	6,371	6,946	13,844
Butter Boxes, Packing Cases*	765,175	91,924	607,164	50,591	577,650	75,991
Wooden Trunks	24,025	19,734	34,964	19,097	27,074	18,163
Other Articles Manufactured	—	77,737	—	58,852	—	205,606
Value of Repair Work Done for Customers	—	9,149	—	10,135	—	8,221
TOTAL	—	209,550	—	145,046	—	321,825

* See also Sawmills and Joinery Works.

(xi) DRESSMAKING AND MILLINERY ESTABLISHMENTS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	Yards.	£	Yards.	£	Yds.	£
Cloth for Costumes, etc.	76,027	52,150	65,091	44,067	59,051	38,724
Other Materials (Linings, Trimmings, etc)	—	81,332	—	73,042	—	74,439
Packing Materials	—	2,479	—	2,276	—	2,183
TOTAL	—	135,961	—	119,385	—	115,346
ARTICLES MANUFACTURED.						
		£		£		£
Costumes, Dresses, Skirts, etc.	—	118,811	—	102,723	—	86,605
Millinery	—	139,807	—	126,760	—	130,778
Other Articles Made	—	3,722	—	3,297	—	7,578
Repairs, Alterations, and Making - up Customers' Materials, and Other Work.	—	26,075	—	26,286	—	27,020
TOTAL	—	288,415	—	259,066	—	251,981

(xii) ELECTRIC LIGHT AND POWER PLANTS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
WORKING EXPENSES.						
		£		£		
Generation	—	2,060,387	—	1,885,460	—	2,033,884
Distribution (Repairs, Maintenance of Mains, Sub-Stations, and House Service)	—	281,657	—	260,601	—	303,578
Public Lighting (Repairs, Maintenance of Street Lamps)	—	49,592	—	50,323	—	51,728
Rents, Rates	—	135,632	—	141,792	—	144,528
Management and General Expenses (including Salaries of Boroughs, Assistant Engineers, and Draughtsmen, Printing, Stationery, Advertising, Insurance, and Departmental Charges)	—	309,405	—	308,820	—	301,015
Total Working Expenses....£	—	2,836,673	—	2,646,996	—	2,834,733
Total Value of Materials Used.£	—	392,208	—	406,283	—	323,116
CURRENT GENERATED.						
	Units. (000)	£	Units. (000)	£	Units. (000)	£
Private Lighting and Domestic Supply (including Heating and Cooking)	59,836	—	68,806	—	85,692	—
Private Motive Power and Industrial Supply (excluding Tramways)	957,568	—	913,346	—	1,107,613	—
Tramways (Private or Municipal)	25,997	—	30,858	—	31,595	—
Bulk or Mixed Supply	16,658	—	19,181	—	21,204	—
Municipal Supply—						
Lighting of Buildings	3,112	—	2,849	—	2,722	—
Street Lighting	10,396	—	10,787	—	13,942	—
Motive Power (excluding Tramways)	3,459	—	3,673	—	4,768	—
Used in Station	58,420	—	60,110	—	75,725	—
Total Units Sold or Used.	1,135,446	—	1,109,610	—	1,343,261	—
Lost in Distribution	82,662	—	82,836	—	98,722	—
Total Units Generated	1,218,108	—	1,192,446	—	1,441,983	—
TOTAL	—	3,851,135	—	3,797,327	—	4,052,910

(xiii) GALVANIZED WARE, TIN WARE, AND STEEL TRUNK FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb	£
Corrugated Iron	734,037	12,077	1,369,915	17,187	1,553,307	19,453
Sheet Iron	1,920,021	27,937	2,947,658	37,423	3,493,691	45,422
Black Sheet Iron	606,148	8,397	617,158	7,329	628,332	7,023
Tinplate	3,491,135	78,438	3,959,630	83,804	5 904,276	84,822
Lead	82,743	1,437	176,768	2,551	165,482	2,185
Lead Pipe	433,755	1,028	66,559	1,534	62,993	1,275
Zinc	6,203	200	17,857	873	11,727	273
Solder	77 613	5,039	92,009	5,414	99,577	6,632
Wire	100,189	1,732	110,083	1,245	133,805	1,398
Copper Sheets	16,607	1,348	15,820	1,191	16,573	1,123
Brass Sheets	4,514	319	7,198	449	5,689	347
Ingot Tin	29,311	3,126	35,117	3,487	55,027	4,594
Tinman's Rivets	18,438	868	26,694	989	26,550	858
Cisterns.....No.	302	1,395	448	1,332	265	471
Sanitary Ware	—	4,124	—	3,152	—	6,977
Brass Fittings	—	2,069	—	2,073	—	2,591
Painting Materials	—	1,281	—	905	—	1,025
Other Materials	—	35,739	—	24,513	—	45,910
TOTAL	—	186,554	—	195,451	—	232,379

(xiii) GALVANIZED WARE, TIN WARE, AND STEEL TRUNK FACTORIES—*contd.*

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
	No.	£	No.	£	No.	£
Galvanized Ware	—	87,085	—	80,134	—	90,991
Tanks	4,136	24,695	5,021	25,465	5,900	30,009
Baths	5,062	3,215	4,768	2,789	5,414	3,486
Tinware	—	108,911	—	118,984	—	172,453
Steel Trunks	40,922	21,236	19,953	12,176	26,184	13,683
Other Articles Manufactured	—	74,424	—	110,902	—	88,951
Work Done for Customers	—	51,632	—	54,267	—	55,207
TOTAL	—	371,198	—	404,717	—	454,780

(xiv) GRAIN MILLS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	Tons.	£	Tons.	£	Tons.	£
Wheat Treated—						
South African	217,303	3,119,407	231,359	2,854,808	167,857	2,067,355
Imported	44,170	774,375	50,338	613,631	134,497	1,633,010
Maize Treated	466,173	2,591,437	427,155	2,803,350	451,576	2,905,259
Oats	7,733	65,607	8,685	66,357	9,446	81,199
Other Grain Treated	12,166	159,415	11,579	95,018	13,861	139,648
Bags, Twine, and other Materials	—	122,920	—	97,402	—	124,888
TOTAL	—	6,833,161	—	6,530,566	—	6,951,359
ARTICLES MANUFACTURED.						
	Tons.	£	Tons.	£	Tons.	£
Flour	78,240	2,006,730	79,781	1,655,107	84,967	1,674,539
Wheat or Boer Meal	132,950	2,340,519	141,250	2,257,887	154,243	2,490,162
Maize Meal	422,886	2,731,666	386,900	3,009,139	408,616	3,143,608
Oatmeal	544	16,659	740	15,988	605	15,762
Rolled Oats	—	89,621	56,835	96,642	2,747	92,012
Bran and Pollard (Wheat)	—	407,409	15,281	397,887	61,315	419,541
Bran (Maize)	—	62,778	—	57,370	14,445	56,165
Other Products	—	255,997	3,693	301,376	—	297,806
TOTAL	—	7,911,379	—	7,791,396	—	8,189,595

(xv) JAM FACTORIES, FRUIT PRESERVING WORKS, AND SWEET FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb.	£
Fruit	27,363,003	252,424	25,891,290	138,386	23,272,641	109,209
Sugar	19,283,564	308,504	21,790,052	284,048	26,295,433	276,829
Glucose	2,556,264	38,570	2,663,868	33,582	3,033,649	38,567
Gelatine	148,453	15,603	162,386	12,437	174,464	11,690
Flavouring and Colouring Matter	—	18,917	—	18,151	—	15,831
Other Ingredients	—	89,705	—	78,922	—	102,833
Packing Materials	—	229,870	—	203,746	—	183,537
TOTAL	—	953,593	—	769,272	—	838,496

(xv) JAM FACTORIES, FRUIT PRESERVING WORKS, AND SWEET FACTORIES—*continued.*

Heading.	1921–22.		1922–.23		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
	lb.	£	lb.	£	lb.	£
Jams and Jellies	7,878,346	181,811	12,535,020	251,784	14,467,215	328,124
Tinned and Bottled Fruit	4,237,002	128,157	3,950,808	103,219	3,668,324	111,288
Dried Fruit	9,135,542	241,612	1,353,575	51,898	847,437	26,990
Candied Peel	186,237	6,733	198,749	8,545	342,865	14,192
Sweets	18,788,418	893,983	20,967,906	874,330	21,273,789	925,436
Other Articles	—	31,389	—	48,539	—	82,812
TOTAL	—	1,483,685	—	1,338,315	—	1,488,842

(xvi) LIME WORKS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	Tons.	£	Tons.	£	Tons.	£
Limestone	179,115	19,522	209,355	4,985	201,973	5,509
Shells	2,779	749	4,330	1,034	3,628	1,017
Other Materials	—	9,020	—	11,377	—	10,361
Bags, Twine, and other Packing Materials	—	28,258	—	33,688	—	33,003
TOTAL	—	57,549	—	51,084	—	49,890
ARTICLES MANUFACTURED.						
	Tons.	£	Tons.	£	Tons.	£
Lime	98,452	209,720	114,605	239,992	110,521	215,634
Other Articles Manufactured or Produced	—	1,254	—	6,645	—	9,393
TOTAL	—	210,974	—	246,637	—	225,027

(xvii) PRINTING AND PUBLISHING ESTABLISHMENTS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb.	£
Paper for Newspapers	21,195,671	409,279	21,875,240	279,076	23,738,606	273,131
Paper for Books, Periodicals, and Job Printing	—	665,757	—	593,764	—	565,549
Straw and other Board	—	62,406	—	35,826	—	34,056
Cloth	—	10,730	—	10,075	—	10,551
Leather	—	6,146	—	6,416	—	4,417
Ink	—	25,237	—	22,835	—	30,419
Other Materials	—	26,275	—	24,064	—	20,615
TOTAL	—	1,205,830	—	972,056	—	938,738

(xvii) PRINTING AND PUBLISHING ESTABLISHMENTS—*continued.*

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
		£		£		£
Newspapers, Magazines, and other Periodicals	—	1,648,560	—	1,612,455	—	1,654,019
Job Printing	—	2,102,005	—	1,886,057	—	1,881,957
Paper Bags and Cardboard Boxes	—	56,993	—	98,577	—	108,997
Other Articles	—	48,208	—	18,423	—	13,265
Amount Received for Work Done on Material Supplied by Customers	—	18,895	—	17,519	—	20,902
TOTAL	—	3,874,661	—	3,633,031	—	3,679,140

(xviii) REFRIGERATING WORKS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
CAPACITY.						
Cubic Feet of Space	5,369,108	—	5,249,183	—	4,686,020	—
PRODUCTION.						
	Tons.	£	Tons.	£	Tons.	£
Ice	59,577	127,027	63,082	124,215	70,289	125,021

(xix) SALT PANS AND REFINERIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
	Tons.	£	Tons.	£	Tons.	£
Salt Produced	83,562	148,445	68,531	114,225	77,569	111,459
Other Articles Produced	—	426	—	1,919	—	1,241
TOTAL	—	148,871	—	116,144	—	112,700

(xx) SAWMILLS.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	Cu. ft.	£	Cu. ft.	£	Cu. ft.	£
South African Timber—						
Rough Timber	2,240,196	164,259	1,941,560	109,869	3,093,781	111,512
Sawn Timber for Further Treatment	166,371	36,844	232,934	30,765	158,240	41,149
Imported Timber	582,804	145,053	832,419	143,474	361,623	74,627
Other Wood for Joinery Work—						
South African	—	9,979	—	3,096	—	65,507
Imported	—	215,867	—	201,873	—	116,889
Other Materials	—	43,273	—	50,910	—	33,751
TOTAL	—	615,275	—	539,987	—	443,435
ARTICLES MANUFACTURED.						
		£		£		£
Rough Sawn Timber	—	296,232	—	235,772	—	152,334
Building and Joinery Wood	—	107,924	—	106,503	—	45,392
Furniture Wood	—	13,888	—	12,631	—	7,211
Wagon and Cart Wood	—	41,600	—	37,867	—	76,328
Railway Coach and Truck Wood	—	296,691	—	256,503	—	207,677
Boxes and Packing Cases*	—	21,227	—	17,975	—	10,512
Mining Props and Fencing Poles	—	52,818	—	57,003	—	33,305
Sleepers	—	32,578	—	38,888	—	33,934
Firewood	—	53,211	—	56,489	—	18,354
Other Wood	—	9,994	—	5,186	—	966
Amount Received for Sawing for Customers	—	21,149	—	20,285	—	22,016
Other Articles Manufactured	—	77,760	—	73,855	—	50,343
TOTAL	—	1,025,072	—	918,957	—	713,372

* See also Packing Case and Wooden Box Factories.

(xxi) SOAP AND CANDLE FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb.	£
Tallow	11,804,898	215,314	11,191,068	207,983	11,773,165	232,127
Oils	9,444,705	220,197	9,718,460	166,280	11,709,878	207,030
Fats	4,531,538	78,578	4,716,568	79,905	4,356,527	75,993
Resin	2,762,545	53,479	2,543,398	24,617	2,470,652	22,186
Dyes	33,918	3,986	38,117	2,937	33,305	2,320
Perfumery	19,026	11,977	73,136	12,103	100,693	15,162
Chemicals	—	82,216	—	56,494	—	62,780
Stearine	1,919,391	63,570	1,580,333	41,419	1,356,527	31,759
Paraffin Wax	15,690,008	424,439	18,515,979	247,392	19,039,883	225,386
Candle Wick	81,407	18,662	92,897	14,695	91,802	15,098
Other Materials Used in Manufacture of Soap and Candles	—	30,082	—	35,822	—	23,232
Cases, Boxes, Cartons, etc.	—	191,138	—	147,601	—	153,320
TOTAL	—	1,393,638	—	1,037,248	—	1,066,393

SOAP AND CANDLE FACTORIES—*continued.*

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
ARTICLES MANUFACTURED.						
	lb.	£	lb.	£	lb.	£
Soap—						
Laundry and Household.	36,095,701	1,039,245	39,207,715	1,051,132	40,953,028	1,023,743
Scouring	1,018,452	33,103	1,064,380	35,023	1,088,978	36,358
Toilet and other kinds	2,576,985	157,885	2,671,913	148,782	2,894,837	159,161
Glycerine	866,132	17,863	887,503	19,321	958,935	21,009
Soda Crystals	2,792,337	13,312	2,167,188	9,030	2,488,316	10,171
Grease	2,252,669	31,573	2,020,054	25,225	2,889,825	33,207
Candles	16,785,465	604,119	21,081,308	567,320	21,197,772	491,764
Other Articles Manufactured or Produced	—	75,386	—	71,034	—	89,368
TOTAL	—	1,972,486	—	1,926,917	—	1,864,781

(xxii) TANNERIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
		£		£		£
Hides.....tons	5,275	294,097	5,851	344,060	8,529	448,676
Skins—						
Sheep.....No..	102,651	9,991	66,704	6,046	58,026	6,196
Goat..... „	41,482	6,003	68,597	12,410	73,801	12,285
Other..... „	29,272	3,879	11,704	1,419	7,282	440
Wattle Bark.....Tons	4,590	28,379	4,390	28,515	4,760	27,987
Wattle Bark Extract.....	—	5,157	—	4,968	—	10,247
Other Vegetable Tanning Materials.....	—	23,905	—	33,802	—	39,717
Mineral Tanning Materials....	—	14,401	—	16,691	—	13,430
Lime and Other Materials Used in Process of Liming.....	—	5,617	—	5,805	—	6,856
Oil, Fat, Tallow, and Other Stuffing Materials.....	—	17,972	—	13,231	—	17,119
Dyeing Materials.....	—	5,693	—	6,857	—	6,898
Other Materials (including Packing Materials).....	—	14,698	—	9,334	—	10,136
TOTAL.....	—	429,792	—	483,138	—	599,987
ARTICLES MANUFACTURED.						
	lb.	£	lb.	£	lb.	£
Leather, Sole—						
Vegetable Tanned.....	4,036,540	350,030	4,873,152	370,401	5,825,555	437,069
Chrome Tanned.....	437,008	59,013	553,280	66,271	700,234	77,517
Leather, Upper—						
Vegetable Tanned.....	633,653	82,367	717,965	85,688	1,197,312	120,203
Chrome Tanned.....	464,377	72,954	675,433	108,439	781,702	118,095
Leather, Harness (including Strap, Bridle, Rein, Saddle, Skirt, and other Leathers Used in Manufacture of Harness and Saddlery).....	620,245	72,200	556,047	62,243	777,083	78,562
Leather, Other.....	216,710	16,380	98,569	7,716	339,294	16,325
Skins.....No...	66,153	18,028	83,527	30,025	101,650	25,907
Wool and Hair.....	—	7,697	—	992	—	1,130
Other Articles.....	—	8,504	—	6,606	—	8,009
TOTAL.....	—	687,173	—	738,381	—	882,817

(xxiii) TOBACCO, CIGAR, CIGARETTE, AND SNUFF FACTORIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb	£
Tobacco Leaf—						
Union of South Africa	7,860,492	336,128	8,080,331	324,105	8,506,391	317,585
Rhodesian	2,130,785	198,677	3,352,178	257,752	3,809,453	262,847
Imported	87,369	34,791	69,015	26,869	52,863	20,844
Other Materials Used in the Manufacture of Tobacco, etc.	—	12,984	—	11,671	—	10,547
Packing Materials	—	414,332	—	345,749	—	277,900
TOTAL	—	996,912	—	966,146	—	889,723
ARTICLES MANUFACTURED.						
		£		£	lb	£
Tobacco lb.	6,596,073	507,700	7,723,444	502,151	8,214,395	510,243
Cigars and Cheroots No.	2,326,484	9,599	3,925,318	12,057	3,899,050	11,212
Cigarettes ,,	1,441,348,484	1,499,814	1,607,341,408	1,512,834	1,669,145,034	1,515,250
Snuff lb.	110,709	11,303	106,794	11,477	119,491	13,170
Sheep Dip or Waste Leaf	—	490	—	701	—	752
Other Articles	—	732	—	52	—	1,001
TOTAL	—	2,029,638	—	2,039,272	—	2,051,628

(xxiv) WOOL WASHERIES.

Heading.	1921–22.		1922–23.		1923–24.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
MATERIALS USED.						
	lb.	£	lb.	£	lb.	£
Soap—						
South African	341,793	8,751	249,993	6,605	172,693	4,318
Imported	615,423	15,243	629,401	9,163	282,415	5,693
Alkali	—	5,580	—	3,831	—	1,716
Other Scouring Materials	—	1,556	—	1,346	—	1,886
Packing Materials	—	6,372	—	3,867	—	1,006
TOTAL	—	37,502	—	24,812	—	14,619
WORK DONE.						
		£		£		£
Wool Received in Grease..Bales	92,006	—	66,911	—	50,831	—
Wool Received in Grease lb.	33,570,308	—	24,540,943	—	18,496,947	—
Weight of Wool after Scouring lb.	13,348,350	—	9,102,440	—	6,781,390	—
Amount Received for Scouring	—	156,907	—	115,224	—	72,375
Value of By-products	—	4,062	—	3,753	—	631
TOTAL	—	160,969	—	118,977	—	73,006

3. **Railway Workshops.**—Particulars are given below as to the output of the workshops of the South African Railways from the year 1915–16. The figures relating to the industry carried on in each establishment have been incorporated with the general returns for the Union, but in view of the special interest and importance which attach to them, the principal figures are given in separate form hereunder, and indicate the magnitude of the productive operations involved. The actual value of the output, measured by the standard which would apply to the usual classes of industrial establishment, would undoubtedly and with perfect legitimacy be placed at an altogether higher figure. It will be observed that as set out in the returns, the value does not greatly exceed the total expenditure on wages, fuel, light, power, and materials.

(i) **RAILWAY WORKSHOPS, 1915-16 TO 1923-24.**

Year.	Total Fixed Capital.	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Employees.	Salaries and Wages Paid.	Cost of Fuel, Light and Power.	Value of Materials Used.	Value of Articles Produced and Work Done.
	£1,000	£1,000	£1,000	No.	£1,000	£1,000	£1,000	£1,000
1915–16	2,040	1,251	788	11,660	1,603	42	2,384	4,301
1916–17	2,143	1,298	796	11,806	1,621	39	2,201	4,116
1917–18	2,143	1,298	836	12,252	1,779	47	2,349	4,474
1918–19	2,175	1,306	869	13,596	2,111	53	3,428	5,839
1919–20	2,293	1,371	922	15,772	2,784	70	5,302	8,487
1920–21	2,536	1,437	1,099	17,837	3,418	86	8,344	12,357
1921–22	2,817	1,569	1,248	17,180	3,320	88	6,437	10,422
1922–23	3,265	1,674	1,590	16,055	3,024	82	3,436	7,009
1923–24	3,435	1,755	1,680	1,7014	3,316	92	3,406	7,370

(ii) **RAILWAY WORKSHOPS, 1923–24.**

Description of Workshops, etc.	Total Fixed Capital.	Value of Land and Buildings.	Value of Machinery, Plant, and Tools.	Number of Employees.
	£	£	£	
Engineering Workshops	2,353,584	1,228,423	1,125,161	7,874
Locomotive Depot Workshops	249,096	126,672	122,424	3,152
Foundries	180,242	88,869	91,373	581
Maintenance Workshops	293,939	102,995	190,944	4,108
Sawmills	142,154	78,113	64,041	234
Electric Light and Power Generating Plants	59,341	12,237	47,104	95
Electric Light and Power Workshops	26,244	19,322	6,922	537
Tarpaulin, Tent, Ropework, etc., Depot	23,279	21,238	2,041	201
Ticket Printing Establishments	7,215	5,440	1,775	13
Cartage Workshops	15,320	11,315	4,005	107
Miscellaneous, (including Sleepers, Creosoting, Ice Factories, Ship, Tug, etc., Repairing, and Water Condensation Plant)	84,806	60,449	24,357	112
TOTAL	3,435,220	1,755,073	1,680,147	17,014

Description of Workshops, etc.	Salaries and Wages Paid.	Cost of Fuel, Light and Power.	Value of Materials Used.	Value of Articles Produced and Work Done.
	£	£	£	£
Engineering Workshops	1,838,102	52,409	1,958,632	4,145,188
Locomotive Depot Workshops	571,023	9,595	410,974	1,084,846
Foundries	122,371	6,556	186,321	349,600
Maintenance Workshops	547,688	6,699	417,335	1,056,805
Sawmills	46,531	4,049	183,988	244,583
Electric Light and Power Generating Plants	18,089	6,957	4,519	33,671
Electric Light and Power Workshops	99,548	1,128	83,546	204,498
Tarpaulin, Tent, Ropework, etc., Depot	26,399	46	118,578	152,573
Ticket Printing Establishments	4,256	121	2,382	7,333
Cartage Workshops	23,726	280	8,882	36,979
Miscellaneous, (including Sleepers, Creosoting, Ice Factories, Ship, Tug, etc., Repairing, and Water Condensation Plant)	17,988	4,584	31,279	54,188
TOTAL £	3,315,721	92,424	3,406,436	7,370,264

NOTE.—In most cases "Capital" represents the combined value of land and buildings and machinery, plant, and tools.

§ 4. Board of Trade and Industries.

1. **Division of Industries.**—Upon the constitution of the first Ministry of the Union a portfolio of Commerce and Industries was created which provided for the control of customs and excise, and also of industrial and commercial matters. This portfolio was successively held by Sir Frederick Moor, late Prime Minister of Natal, and Colonel Sir George Leuchars, during whose tenure of office, on a rearrangement of portfolios, the Department of Commerce and Industries was abolished, Ministerial control of customs and excise being vested in the Department of Finance. Matters connected with commerce and industry were then dealt with by a branch of the Customs Department designated as the *Commercial Section.* Simultaneously with these changes the portfolio of Mines, which already included in its administration machinery regulations and the manufacture of explosives, was extended to include industries, with special reference to labour organization as a result of the rise of labour problems connected with the mining and allied industries, the title being altered to that of "Mines and Industries." This arrangement as regards the commercial section of the Customs Department and the industrial side of the Mines Department continued until the middle of 1916, when, owing to the growing importance of questions affecting industrial production as a result of the War, further alteration was found to be necessary, and the work of the commercial section of the Customs Department was transferred to the Department of Mines and Industries, thus concentrating and developing in the one Department the work previously carried on by the two branches.

A further change occurred in July, 1924, in that, upon the constitution of a Ministry of Labour in that month, the Department of Labour took over from the Department of Mines and Industries the existing Labour Division and with it the Control of Relief Works, the Administration of the Industrial Conciliation Act, the Apprenticeship Act, the Juveniles Act, and the Regulation of Wages Act.

In May, 1925, the control of the Trade Commissioner Service, which up to that date had been exercised by several Departments of State, was definitely vested in the Department of Mines and Industries and the Service then formed a section of the Division of Industries.

On the 1st December, 1925, the Board of Trade and Industries assumed control of the functions formerly exercised by the Division of Industries which from that date ceased to exist.

2. **Advisory Boards.**—In October, 1916, an Industries Advisory Board, designed to advise the Minister in regard to the industrial development of the Union, was appointed, and early in 1917, a Scientific and Technical Committee, to deal with scientific methods of research and management, was created. In October, 1918, these bodies were amalgamated under the title of the Advisory Board of Industry and Science. This final Board, having completed the work for which it and its predecessors were constituted, dissolved in January, 1923.

The *Research Grant Board* was instituted by the Government in 1918. It was at first associated with the Advisory Board of Industry and Science, but on the dissolution of the latter became a separate body attached to the Division of Industries, and reporting to the Minister of Mines and Industries and the Minister of Education.

The duties of the Board are generally to advise the Government regarding the practical measures necessary to the encouragement of research within the Union, and to administer all Government grants in aid of research. (See also page 198.)

3. **Publications of Industries Division.**—The publication of a *Journal of Industries** was commenced in September, 1917. This *Journal* served as a medium not only for the dissemination of current information, but for the reports which were being prepared

(*a*) on the natural resources of the Union;
(*b*) by the Board of Trade and Industries;
(*c*) by Departmental Committees.

Reports on the following subjects have already been published in the *Journal.*

A.

1. The Economics of Agricultural Production in South Africa.—(R. A. Lehfeldt, D.Sc.)
2. Hides, Skins, and Leather Manufacture.—(E. R. Swale.)
3. Mineral Oil, Solid Bitumens, Natural Gas, and Oil Shale.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
4. South African Fibre Plants: I. Ambari, or Deccan Hemp; *Hibiscus Cannabinus L.*—(I. B. Pole-Evans, M.A., D.Sc., F.L.S.)
5. Electro-Chemical Industries: Prospects and Possibilities of their Establishment in South Africa.—(H. Bohle, M.V.D.E., M.I.E.E., and C. D. van der Merwe, B.A., Ph.D.)
6. Report on Certain Minerals used in the Arts and Industries: I. Asbestos.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
7. The Grasses of the Eastern Coast Belt Available for the Manufacture of Paper; and the Possibilities and Prospects of Paper-making in the Union of South Africa.—(C. F. Juritz, M.A., D.Sc., F.I.C.)
8. The Commercial Possibilities of Eucalyptus Trees.—(R. H. Crozier.)
9. Iron and Steel in the Union of South Africa.—(Prof. G. H. Stanley, A.R.S.M., F.I.C.)
10. Cotton and Cotton-seed Products.—(H. W. Taylor, B.Agr.)

* With the December, 1925, number, the *Journal* ceased publication. In connexion with the Trade Commissioner's Service, the Board of Trade and Industries purposes issuing a monthly publication of Commercial Intelligence News.

11. Report on Certain Minerals used in the Arts and Industries: II. Graphite.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
12. Report on Certain Minerals used in the Arts and Industries: III. Magnesite.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
13. Some Cultural Products Imported into the Union of South Africa.—(J. Burtt-Davy, F.L.S., F.R.G.S., F.R.S.S.A.)
14. Report on Certain Minerals used in the Arts and Industries: IV. Mica.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
15. South African Tanning and Dyeing Materials.—[C. Williams, B.Sc. (Lond.), A.R.C.S. (Lond.)]
16. Tartaric Acid and Other By-Products of Wine Industry.—(P. D. Hahn, Ph.D., M.A.)
17. The Manufacture of Ceramic Wares in the Union.—[John Adams, A.R.C.A. (Lond.).]
18. Report on Certain Minerals used in the Arts and Industries: V. Corundum.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
19. Fertilizers. (B. de C. Marchand, B.A., D.Sc.)
20. Report on Certain Minerals used in the Arts and Industries: VI. Talc.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
21. The Importance of a Pig Industry.—(W. A. K. Morkel, M.Sc.)
22. Main Problems in the Economy of Agricultural Production in South Africa.—[H. Wolfe, M.Sc.(Ag.).]
23. Sheep and Wool in South Africa, and their Relation to Industrial Development.—(Charles Mallinson.)
24. Research and Industry in Canada.—(Wm. Flint, D.D.)
25. Inorganic Chemical Industries.—(M. Rindl, Ing. D.)
26. Nickel.—(T. G. Trevor, A.R.S.M.)
27. The Manufacture of Soap and Candles.—(M. Rindl, Ing. D.)
28. Coal: its Value as a Raw Material for Distillation Products.—(Prof. J. A. Wilkinson).
29. Report on Certain Minerals used in the Arts and Industries: VII. Fluorspar.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
30. Manganese.—(T. G. Trevor, A.R.S.M.)
31. Sulphuric Acid Industry.—(M. Rindl, Ing. D.)
32. Report on Certain Minerals used in the Arts and Industries: VIII. Barytes.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
33. Fibre Plant Investigations.—[E. Holmes-Smith, B.Sc. (Edin.).]
33. Fibre Plant Investigations: Part II.—[E. Holmes-Smith, B.Sc. (Edin.).]
34. A Review of the Union System of Taxation, with Special Reference to the Development of Industries and Resources.—(J. C. Sheridan.)
35. The Union's Viticultural Industry.—(A. I. Perold, B.A., Ph.D.)
36. Nitric Acid and other Inorganic Chemicals.—(M. Rindl, Ing. D.)
37. Dips and Dipping.—(H. H. Green, D.Sc.)
37A. Dipping against Scab.—(H. H. Green, D.Sc.)
38. Glass, with Special Reference to its Production in South Africa.—(P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
39. The Manufacture of Ammonia and Ammonium Compounds.—(M. Rindl, Ing. D.)
40. Agricultural and Pastoral South Africa.—(F. D. MacDermott.)
41. Prospects of Hop Growing in South Africa.—(G. Shaw-Scott.)
42. Hydrochloric Acid and Hydrogen Peroxide.—(M. Rindl, Ing. D.)
43. Report on the Marble Deposits on the Farms Marble Hall No. 248 and Scherp Arabie No. 367, Pretoria District.—(T. G. Trevor, A.R.S.M., and P. A. Wagner, Dr. Ing., B.Sc., F.R.S.S.A., M.A.I.M.E.)
44. Financial Resources of South Africa Available for Industrial Expansion.—(E. C. Reynolds.)
45. The Land Bank and its Objects.—(T. B. Herold.)
46. Fruit and Fruit Products of South Africa.—(R. A. Davis.)
47. Soil Erosion and Conservation.—(T. R. Sim, Hon. D.Sc., F.L.S., F.R.H.S.)
48. The Live Stock Industry of South Africa.—(S. B. Woollatt.)
49. The Economic and Natural Factors affecting Factory Location in South Africa.—(S. B. T. Ewing, M.I.E.E.)
50. Fibre Plant Investigations, II.—(E. Holmes-Smith, B.Sc.)
51. Flax Cultivation.—(E. Holmes-Smith, B.Sc.)
52. Inorganic Chemical Industries.—(M. Rindl, Ing. D.)
53. South African Rubber.—(T. R. Sim, Hon. D.Sc., F.L.S., F.R.H.S.)
54. Vegetable Fats and Oils, Part I.—(M. Rindl, Ing. D.)
55. The Tea Industry in South Africa.—(Hon. W. F. Clayton, M.L.A.)
56. Government Assistance to Industrialists.—(Prof. R. Leslie.)
57. The Utilization of Waste Coal.
58. Economics of Wheat Production in South Africa.—[H. Wolfe, M.Sc. (Ag.).]
59. Transport Methods in South Africa: the Present Position with Reference to the Development of Industries.—(Sir Wm. Hoy, Kt., C.B.)
60. Power Applied to Agriculture.—(W. S. H. Cleghorne, B.Sc., A.M.I.M.E.)
61. Iron and Steel in the Union of South Africa. Revised Edition of Bulletin No. 9.—(Prof. G. H. Stanley, A.R.S.M., F.I.C.)
62. Datura Stramonium.
63. Fertilizer Production and Natural Fertilizers in the Union.—(C. F. Juritz, M.A., D.Sc., F.I.C.)
64. Artificial Stock Foods and their Manufacture.—(W. J. Palmer, B.S.A.)
65. The Prickly Pear (Opuntia): Possibilities of its Utilization.—(C. F. Juritz, M.A., D.Sc., F.I.C.)
66. Sugar and Sugar Products.—(Wallace Jex.)
67. Water Power in the Union of South Africa.—(F. E. Kanthack, C.M.G., M.I.C.E., M.A.H.E.)
68. Timber Trees for Commercial Culture, Part I.—(T. R. Sim, Hon. D.Sc., F.L.S., F.R.H.S.)
68A. Timber Trees for Commercial Culture, Part II.—(T. R. Sim, Hon. D.Sc., F.L.S., F.R.H.S.)
69. Apiculture in South Africa: its Present Position and Prospects.—(A. J. Attridge.)
70. Utilizing Prickly Pear and Spineless Cactus: their Value as Fodder for Live Stock.—(J. Burtt-Davy, F.L.S., F.R.G.S.)
71. The Production of Foodstuffs for Live Stock in South Africa.—(H. D. Leppan, B.Sc.Agri.)
72. Vegetable Oils and Fats: Sesame and Melon Seeds.—(M. Rindl, Ing. D.)
73. Essential Oils.—(F. J. Tromp, M.A., D.Sc.)
74. The Fish and Fisheries of South Africa.—(J. D. F. Gilchrist, M.A., D.Sc.)
75. Castor Beans and Castor Oil.—(M. Rindl, Ing. D.)
76. Some Sources of Non-Drying Oils.—(M. Rindl, Ing. D.)
77. Tree Planting for the Farm.—(T. R. Sim, Hon. D.Sc., F.L.S., F.R.H.S.)
78. Economic Plants at Kirstenbosch and the Aim of their Cultivation.—(J. W. Mathews.)
79. The Future Development of the Post, Telegraph, and Telephone Services of the Union of South Africa.—(Jer. Wilson, C.M.G.)
80. The Patent System of the Union of South Africa in Relation to its Industrial Development.—(C. W. T. B. Juta.)

81. Olives.—(I. Tribolet.)
82. Insect Pest Remedies.—(C. P. Lounsbury.)
83. Fodder Trees and Shrubs for South African Farms.—(H. D. Leppan, B.Sc.Agr.)
84. The Tobacco Industry.—(H. W. Taylor, B.Agr.)
85. Maize as a Raw Material for Manufacture.—(J. Burtt-Davy, F.L.S., F.R.G.S.)
86. Roads and Road-Making.—(A. D. Holmwood.)
87. An Open Road from Primary School to University.—(A. Brown.)
88. Ground-nuts as a Source of Oil.—(M. Rindl, Ing. D.)
89. Vocational Education.—(Percy Coleman.)
90. Cereals Other than Maize—I. Wheat.—(J. H. Neethling.)
91. Influence of Geographical Conditions on the Economic Development of South Africa.—(J. Hutcheon).
92. The Ostrich Feather Industry.—(F. C. Smith.)
93. Some Hygienic Principles Governing the Erection of Factory Buildings.—(R. Beattie.)
94. Industrial Timber Research Abroad and in South Africa.—(Nils B. Eckbo.)
95. Animal Oils, Fats, and Waxes.—(Chas. F. Juritz.)
96. The Black Wattle Industry.—(T. R. Sim.)
97. Wheat in South Africa.—(J. C. Neethling.)
98. Cane and Berry Wax.—(M. Rindl.)
99. Report on the Matsap Pan.—(A. W. Rogers.)
100. Oil-yielding Rocks in the Union of South Africa.—(T. G. Trevor, A.R.S.M.)
101. Platinum in the Waterberg District.—(P. A. Wagner, D. Eng., D.Sc., F.G.S., and T. G. Trevor, A.R.S.M.)
102. The Platinum Deposits in the Western Part of the Lydenburg District.—(P. A. Wagner, D. Eng. D.Sc., F.G.S.).
103. The Prospects of an Oil Shale Industry in the Union.—(Report by the Oil Fuel Committee.)

B.

See Section No. 4 (Board of Trade and Industries).

C.

Road and Bridge Problem and Policy.
Development of the Mineral Resources of the Union.
An Economic Policy for the Union.
The Purchase of Government Supplies.
Timber for Railway Purposes.
Mechanical Transport in Rural Areas.

The following have been published, not in the *Journal*, but as special memoirs :—

1. The Base Metal Resources of the Union of South Africa.—(Wm. Versfeld, B.A., D.Sc.)
2. Report on Trade Conditions in British East Africa.—Uganda and Zanzibar.—(T. Sleigh, M.B.E.)
3. Native Timber Trees.—(T. R. Sim, Hon. D.Sc., F.L.S., F.R.H.S.)

4. **Board of Trade and Industries.**—The first Board of Trade and Industries was established on the 6th July, 1921. In 1923, the Board was placed on a statutory basis by Act No. 28 of 1923. The first Board was replaced on the 1st October, 1924, by a Board established under Act No. 33 of 1924. On the 1st December, 1925, the Industries Division of the Department of Mines and Industries ceased to exist, and the Board, acting subject to the direction of the Minister of Mines and Industries, assumed control of the functions formerly exercised by the Industries Division. From this date also the Board was authorized to act as the co-ordinating medium between the public and the Trade Commissioners for the Union in matters relating to overseas trade.

The Board consists of a chairman and not more than three other members, who hold office for a period not exceeding three years, and who may be reappointed from time to time for a further period not exceeding three years. The appointment or re-appointment of members provides for their retirement by rotation. The chairman and members receive such salaries or remuneration (out of moneys appropriated by Parliament for the purpose) as the Governor-General may determine.

Subject to the direction of the Minister, the functions and duties of the Board, as defined by Act No. 33 of 1924, shall be to inquire into and advise the Government on all matters concerning the economic development of the natural resources of the Union and its industries and trade, and in particular on—

(*a*) the payment of bounties or other forms of State aid for industries ;
(*b*) fiscal policy in so far as it bears on commerce and industry ;
(*c*) the recasting and revision of the customs tariff ;
(*d*) the removal of anomalies from time to time in the customs and excise tariffs ;
(*e*) complaints or recommendations on the working of the customs and excise tariffs ;
(*f*) combinations, trusts, monopolies, and restraints of trade tending to affect the general interest injuriously, especially by restricting production or maintaining or raising prices ; and the prevention thereof ;
(*g*) the dumping of imported goods whereby Union industries are likely to be unfavourably affected ;
(*h*) the supply of raw materials, labour and technical knowledge for industry, and the encouragement of the investment of capital in industry ;
(*i*) transport and markets for the requisites and products of industries ;
(*j*) the relation between factory, wholesale and retail prices :
(*k*) commercial legislation ;
(*l*) such other matters as the Minister may refer to it for report.

The Board shall report to the Minister on the matters referred to it and on such matters as may be referred to the Board by statutes and, in doing so, it is the duty of the Board

to report as fully as possible on all aspects of any matter referred to it in so far as they may affect the revenue, trade, and commercial and economic conditions, with special reference to the probable effect of any action recommended, on the consumer and those employed in industry.

The Board may take evidence under oath for the purpose of any inquiry falling within its functions and duties and may subpœna witnesses and may examine books, records, or documents which any witness has been required to produce. Penalties are provided for failure to obey a subpœna or for giving false evidence. Penalties are also provided in the case of any member or officer of the Board who discloses information acquired by the Board in the exercise of its powers of hearing evidence on oath.

The recommendations and reports made by the Board upon any matter under the Act must be submitted to Parliament.

The new Board was constituted on the 1st October, 1924, as follows: A. J. Bruwer, M.A., Ph.D. (chairman); Mr. F. J. Fahey; M. H. de Kock, M.A., Ph.D.; Professor H. E. S. Fremantle, M.A. (resigned, 31st July, 1925); G. S. H. Rossouw, M.A., Ph.D. (appointed to the Board on the 1st November, 1925, *vice* Professor Fremantle); Mr. W. F. McMullen (secretary).

The first Board submitted forty-two reports to Government on various matters connected with the trade and industry of the country (Nos. 1–40 below). The second Board has submitted nineteen reports (Nos. 41–57 below). Of these documents those asterisked have not been published. The majority have been made available to the public in the numbers of the *Journal of Industries*, indicated in brackets. Three have been published as "White Papers" by the Government Printer, Pretoria. The following is a full list of the reports issued up to the present:—

Report No.
* 1. General.
* 2. Footwear and Tanning Industry.
* 3. The Cork Industry.
* 4. The Wire Rope Industry.
* 5. The Chicory Industry.
* 6. Butter Making Industry. Maize Exports. Macaroni and Vermicelli Manufacturing Industry.
Table Jelly Powder.
Salt Industry.
* 7. Bounty System (Iron and Steel).
* 8. Boot and Shoe Schedule.
* 9. The Paper Industry.
10. Calcium Carbide Manufacturing Industry, (February, 1924.)
* 11. Bounties on the Export of Meat.
12. Wheat and Flour. (October, 1925; November, 1925.)
* 13. The Footwear Industry.
14. Motor Fuel (increased duty on packed fuel). (November, 1923.)
15. Condensed Milk Industry. (September, 1923.)
16. Bottles and Glass Containers. (January, 1924.)
17. Plywood Manufacturing Industry. (October, 1923.)
18. Acetylene Lamp Manufacturing Industry. (November, 1923.)
19. The Enamelled-ware and Printed and Lithographed Tinplate Industry. (February, 1924.)
20. The Asbestos-Cement Manufacturing Industry. (November, 1923.)
21. Confectionery. (December, 1923.)
22. Golden Syrup and Treacle. (August, 1924.)
23. The Maize By-products Industry. (October, 1923.)
24. The Paint Manufacturing Industry. (November, 1923.)
25. Detonators. (March, 1924.)
26. Raw Materials and Requisites for use in Industry—Rebate of Customs Duties. (November, 1923.)
26*a*. Raw Materials and Requisites for use in Industry—Rebate of Customs Duties. (November, 1923.)
27. Bacon and Ham Industry. (December, 1923.)
27*a*. Bacon and Ham Industry. (January, 1925.)
28. Shirt, Collar, and Pyjama Suit Manufacturing Industry. (February, 1924.)
* 29. Adulterated Leather Bill and Imported Footwear.
30. Cement Dumping. (May, 1924.)
* 31. Leather Goods. (Adulteration of Leather.)
32. Wattle Growing and Wattle Tanning Extract Industries. (September, 1924.)
33. Carbonate of Soda Manufacturing Industry. (October, 1924.)
34. Restraint of Trade. (June, 1924.)

* 35. The Cigar and Cheroot Manufacturing Industry.
* 36. Re-organization of the Board of Trade and Industries.
37. Working of the Beef Export Bounties Act, No. 12 of 1923. (November, 1924.)
38. Dumping. (December, 1924.)
* 39. Cigarette Manufacturing Industry (Alleged Unfair Competition).
40. Work of the Board of Trade and Industries, 1921–1924. (January, 1925.)
41. Dumping Duty on Wrapping Paper. (January, 1925.)
28*a*. Silk Shirting—Free Admission of. (July, 1925.)
42. Dumping or Unfair Competition. (July, 1925.)
43. The Rise in the Price of Bread. (April, 1925.)
44. The Salt Industry (Interim Report). (July, 1925.)
* 45. "Contex" Floor Covering.
46. South Africa and Imperial Preference. (White Paper.)
47. Acetic Acid for Industrial Purposes. (July, 1925.)
48. Dumping Duty on Mozambique Cement. (July, 1925.)
* 49. Dobo Grass in Pondoland for Manufacture of Pulp and Paper.
* 50. Harrismith Woollen Mills—Application for Financial Assistance.
51. Revision of the Customs Tariff. (White Paper.)
* 52. Nutresco Meat Extract.
* 53. Adulteration of Leather.
* 28*b*. Free Admission of Shirting.
54. Meat, Fish, and other Foodstuffs—Inquiry into Trade Combinations, Supplies, Distribution, and Prices. (White Paper.)
* 55. Ostrich Feather Industry.
* 56. Dumping of Sugar from U.S.A.
* 57. Dumping of Mozambique Sugar.

§ 5. Miscellaneous.

1. Iron and Steel Industry Encouragement Act, 1922.—Following the lines of a report submitted by the Board of Trade and Industries in June, 1922, this Act (No. 41 of 1922) makes provision for the payment, out of the Consolidated Revenue Fund, of bounties in respect of pig-iron and steel produced in the Union from ores mined in the Union. These bounties are to be paid only if the plant is capable of producing at least fifty thousand tons of pig-iron or steel per annum. Advances, if desirable, may be made to the producer prior to the stage of production having been reached, provided that these advances do not exceed in any one year the amount of bounties which would be obtained if the stage of production had been reached. Every producer desirous of obtaining a bounty under the Act must notify the Minister of his intention to commence production and furnish particulars of the company and the plant. The Act further provides (1) for the nomination by the Governor-General of a representative on the board of directors of any company receiving a bounty; (2) for the examination of the books and accounts of any producer desirous of obtaining a bounty; and (3) for the preparation by the Treasury of annual returns of particulars of bounties paid.

The Schedule to the Act sets forth the rates at which the bounties are to be paid, as shown in the following table:—

IRON AND STEEL BOUNTIES (ACT NO. 41 OF 1922).

Financial Year.	Per Ton of Pig-Iron or Steel Produced.
	s. d.
1924–5	15 0
1925–6	15 0
1926–7	15 0
1927–8	12 6
1928–9	10 0
1929–30	7 6
1930–1	5 0
1931–2	2 6

2. **Electricity Act, 1922.**—This Act (No. 42 of 1922) provides for the appointment of a Commission of from three to five members to establish, acquire, maintain, and work undertakings for an efficient and cheap supply of electricity in the Union, and to investigate new or additional facilities for that supply. The powers of the Commission are wide, and include the appointment of officers, the purchase or sale of plant and property, the purchase or sale of coal, steam, water, and other materials and stores, and the manufacture and sale of by-products. The Commission was appointed on the 1st March, 1923, and is composed of the following members: Dr. H. J. van der Bijl (chairman), J. R. Fulton, and R. Niven, with A. C. McColm as secretary.

The Act further provides for the appointment of a Board to control the supply of electricity by the Commission or any private undertaking. The Electricity Control Board was first appointed under the Act on the 28th August, 1922, and now consists of the following members: Dr. Hans Pirow, D.Sc., Government Mining Engineer (chairman), C. J. Lansdown, K.C., and C. Mullins, Chief Inspector of Machinery, with R. Stourton as secretary.

Regulations under the Act were published on the 8th December, 1922.

The Electricity Supply Commission commenced its activities in March, 1923, and since that date a number of electrical undertakings were made the subject of investigation by the Commission, which has had in view from the outset the possibility of assisting industries by means of cheap power. In consultation with the other interests concerned the Commission entered into the following undertakings:—

(1) The erection of a power station (capacity 60,000 kw. maximum continuous rating) in the Witbank area, at an estimated capital cost of £1,079,500, to be built and operated by the Victoria Falls and Transvaal Power Company, Limited, for and on behalf of the Commission.

(2) The establishment of an electrical undertaking (capacity 30,000 kw.), at Cape Town, primarily to supply the power required for the proposed electric working of the Cape Peninsula suburban railways, but also to serve the whole of the Cape industrial area. The estimated capital expenditure for which the Commission is responsible is £977,500.

(3) The control of the Colenso power station (capacity 60,000 kw.) erected by the South African Railway Administration in connexion with the electrification of portion of the Natal main line.

(4) The erection of a power station in the Durban area, to supply power to the Durban Corporation and ultimately to be linked up with any electrical undertaking necessitated by the proposed extension of the electrification scheme of the Durban–Pietermaritzburg railway line.

(5) The provision of a hydro-electric power scheme in the Sabie area, Northern Transvaal, in the interests of the numerous small mining concerns in that area.

Under the *Electricity Act* the Commission is required to report upon any proposals by a municipality for the establishment of a new electricity undertaking or the enlargement of an existing scheme to an extent exceeding, within a period of twelve months, 10 per cent. of its existing rated generating capacity. Up to June, 1925, forty-nine municipal schemes were reported upon by the Commission.

CHAPTER XVIII.

COMMERCE.

§ 1. Customs Unions and Conventions.

1. **Customs Union Conventions.**—The first Customs Union Convention was entered into between the Colony of the Cape of Good Hope and the Republic of the Orange Free State in 1889. An account of the terms of this Convention, of the Customs Conference at Bloemfontein in 1896, the Customs Conventions of 1898 and 1903, the Conference of 1906, and of the Customs Convention which resulted, is given in the fourth and previous issues of this *Year Book*. The particulars have not been repeated owing to exigencies of space.

2. **Transvaal–Mozambique Convention.**—The Transvaal–Mozambique Agreement was a Convention entered into between the Transvaal Government* and the Government of the Province of Mozambique in 1909 (2nd April), to remain in force for ten years from that date, and thereafter until either party to the agreement gave one year's notice of intention to terminate it. The Convention replaced the *Modus Vivendi* which had been signed on the 12th December, 1901 (with addition signed on the 15th June, 1904), and dealt with customs matters, the circulation of commerce, native labour, and railway traffic between the two territories. Under these heads it provided for the free entry into the colonies of the products of the soil of either and for the recruitment of native labour in Mozambique for the Transvaal mines. It was also provided that by the periodical revision of railway rates it would be ensured that from 50 to 55 per cent. of the railway traffic to what are known as the *competitive areas* of the Transvaal, should come through Lourenco Marques. These percentages from 1914 were as follows :—

1914 : 48·79 ; 1915 : 36·17 ; 1916 : 31·19 ; 1917 : 35·41 ; 1918 : 27·86 ; 1919 : 33·33 ; 1920 : 37·97 ; 1921 : 43·99 ; 1922 : 52·86 ; 1923, 47·41.

The Convention was denounced by the Union Government by notice dated the 1st April, 1922, negotiations for a new agreement being subsequently initiated. As no agreement was arrived at by the 31st March, 1923, when the notice expired, the Convention in its old form lapsed on that date. It was, however, arranged by the two Governments that Part I of the Convention, dealing with native labour, should be prolonged provisionally, subject to six months' notice. The text of this part will be found in the sixth issue of this *Year Book*, Chapter XXVII.† Furthermore, by agreement between the two Governments, the following articles of Part III of the Convention, relating to commercial intercourse and customs, remained temporarily in force, in view of the magnitude of the transit trade between the Union and Mozambique :—

XXXV. Merchandise of any origin or nationality imported through Lourenco Marques and bound for the Transvaal shall be entirely exempt from any charges whatsoever, excepting port and warehousing charges and the charges now known as Industrial Contribution.

XXXVI. Goods *ex* bond and *ex* open stocks within the Lourenco Marques district shall be admitted into the Transvaal upon payment of the duties in force in the Transvaal at the time of entry thereto, such duties being estimated on the oversea value of goods in the case of goods under the *ad valorem* classes.

For the purpose of this article, importers will be required, on arrival of the goods at Lourenco Marques, to pay the Transvaal duties to the Transvaal Customs, or to satisfy such Customs as to the due payment of those duties. Importers will be required to produce, when necessary, proof to the satisfaction of the Transvaal Customs as to the values of the goods, and to furnish any further information which may be required for the protection of the Transvaal revenue. In the case of goods on which Transvaal customs have been paid not entering the Transvaal, the amounts so paid shall be refunded by the Transvaal Customs to the importers.

XXXVII. With respect to goods imported into the Transvaal and exported therefrom through the port of Lourenco Marques, no higher export duties shall be imposed either in the Transvaal or in Lourenco Marques than are levied on similar goods exported through the ports of the Cape Colony and Natal.

XXXVIII. No higher duties or other taxes shall be levied in the Transvaal on goods imported thereto through the port of Lourenco Marques than are levied on similar goods imported into the Transvaal through the ports of the Cape Colony and Natal.

XXXIX. It shall be lawful to re-export from the bonded warehouses in Lourenco Marques any merchandise imported thereto, and the said merchandise shall be exempt from any export or re-exportation duty, and shall only be liable to the payment of warehouse charges and fees and of port dues. The provisions of this article shall apply only to such merchandise as the Portuguese Customs authorities are satisfied has been bona fide ordered for the Transvaal.

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* After the constitution of the Union in 1910, the terms of the Convention became applicable to the whole of the Union.

† The complete text of the Convention was published in the fifth and previous issues of this *Year Book*.

In addition, potatoes, onions, malt, coal, fresh fruit, fresh vegetables, fresh butter, eggs and poultry, the produce of the Union, are admitted into Mozambique free of duty.

3. **East African Trade Delegation.**—A delegation, consisting of Sir Ernest Chappell (chairman) and Messrs. J. D. Heddon and W. H. L. Pybus, was sent in October, 1922, to investigate and report on reciprocal trade relations between Kenya, Uganda, and Tanganyika, and the Union of South Africa. A draft agreement was drawn up, which was given in detail in the sixth issue of this *Year Book*.

4. **Madagascar Trade Conference.**—In response to the invitation of the French Government, Mr. J. D. Heddon, representing the Union Government, and Mr. A. Buchanan, on behalf of the Associated Chambers of Commerce of South Africa, visited the first exhibition (La Foire Commerciale) held in Madagascar in 1923. The opportunity was taken to hold an Economic Conference, at which representatives of Madagascar, Réunion, Mauritius, and the Union of South Africa were present. The principal obstacles in the way of an export trade to Madagascar are (1) an unfavourable Customs tariff, (2) an infrequent and irregular steamship service, and (3) the low exchange value of the franc. The second obstacle will to some extent disappear if the volume of trade increases, and with that object in view the Conference adopted two resolutions, recommending that the Colony of Madagascar should accord the benefit of the minimum tariff to certain goods of South African origin exported from the Union of South Africa, in return for which the Union of South Africa should allow special rebates of duty in respect of certain goods of Madagascar origin exported from Madagascar. Further details will be found in the report on the Madagascar Trade Conference published in August, 1924.

§ 2. Union Customs Management and Tariff.

1. **Customs Management.**—In terms of section 136 of the *South Africa Act*, 1909, there is free trade throughout the Union. The application of customs control, therefore, affects only the trade of the Union with other countries, carried on in the main with countries overseas.

The management of the Customs of the Union is provided for by Act No. 9 of 1913 (*Customs Management Act*), which became operative on the 1st August, 1913, in substitution for numerous laws previously in force in the various Provinces. The control and management of the collection of duties is vested in a Commissioner of Customs. Every person employed on any duty relating to customs by order or with the concurrence of the Governor-General, or of the Commissioner of Customs, is an officer of customs. Provision is made for the boarding and searching of ships, the sealing of goods, the taking of samples, and the appointment of ports and landing places—free warehousing ports, or ports for limited purposes.

All duties collected are paid into the Union Treasury and are levied on weights and measures established by law in the Union. When notice is given in the House of Assembly by any Minister of State of a resolution to affirm the expediency of increasing any customs dues, the officer of customs is empowered to demand a bond from importers to cover the payment of any such increase which may thereafter be imposed; but such bond may only extend over a single session of Parliament.

(i) *Prohibitions of Importations.*—The goods enumerated in the following list are prohibited to be imported into the Union:—

(*a*) Goods which, being foreign manufacture, bear the name, mark, or brands of manufacturers resident in the United Kingdom or any British possession, or which, whether of foreign manufacture or not, bear marks contravening the provisions of any law in force in the Union relating to merchandise marks.
(*b*) Coins, base or counterfeit.
(*c*) Indecent, obscene, or objectionable prints, paintings, photographs, books, cards, lithographic or other engravings, or any other indecent, obscene, or objectionable articles; in the event of any question arising as to whether such articles are indecent, obscene, or objectionable, the decision of the Minister shall be final.
(*d*) Prison-made and penitentiary-made goods.
(*e*) Printed books, music, and newspapers which are unauthorized prints of any works which are copyright in the United Kingdom or the Union or any British possession.
(*f*) All animals, articles, matter or things, the importation of which is from time to time prohibited by or under the authority of any law.
(*g*) Carbide of calcium which, when treated with water, yields less than 250 litres of gas from one kilogram, the gas being measured at 15° C. under a pressure of 760 millimetres of mercury.
(*h*) Second-hand boots and shoes.

Restrictions are imposed upon the importation of habit-forming drugs. In addition to forfeiture a penalty is imposed on any person importing prohibited goods.

(ii) *Obligations of Importers.*—No importation of goods into the Union may be made without due entry and the payment of any customs dues. Every person carrying on business in the Union is required to keep within the Union reasonable and proper books or accounts of his tranactions in one of the official languages of the Union, and within two years after the date of any importation may be required to produce bills of lading, invoices, and other documents relating to the goods. The particulars to be contained in invoices are prescribed by regulation. Any person offering goods for sale, or removing them, or having such goods entered in his books, may be required to produce proof as to the person from whom the goods were obtained, and, if he is the importer, as to the place where the import dues were paid.

(iii) *Entry Inwards.*—The master of every ship is required to report in person, or by his authorized agent, within twenty-four hours after the arrival of his ship in a Union port. Due entry of goods must be made before landing. Importers must effect entry within fourteen days of a ship's arrival. In default, the goods may be conveyed to the *King's Warehouse*, and, if not cleared within three months, may be sold.

Station masters on the railways are required to report the arrival of goods from without the Union by train. Similarly, persons arriving overland with goods are required to report.

Undervaluation of goods is punishable with fine.

Provision is made for bonded warehouses under licence of the Commissioner of Customs. Heavy penalties are imposed in respect of unlawful warehousing and smuggling.

(iv) *Exportation of Goods.*—The exportation or carriage coastwise of arms, ammunition, military and naval stores, or goods being capable of conversion into such stores, may be prohibited. Entry outwards has to be made in respect of every ship bound from the Union, delivery being made to the officer of customs of a content of goods loaded in such ship with other particulars. Exporters are required to deliver a bill of entry, and export duty (if any) must be paid.

Special provisions are made in respect of coasting trade between Union ports.

(v) *Ports of Entry.*—Under the *Customs Management Act* the following places have been proclaimed ports of entry for the Union to or through which goods may be imported, or through which alone they may be exported :—

Cape Province.—Cape Town, Port Elizabeth, East London, Mossel Bay, Port Nolloth, Knysna, Simonstown, St. John's River, Kimberley.

Natal.—Durban, Manyoka Gate, Mtini, Ingwavuma.

Transvaal.—Johannesburg, Pretoria, Germiston, Boksburg, Krugersdorp, Roodepoort, Main Drift (on the Rhodesian-Transvaal border), Komatipoort, and Liebig's Drift.

Orange Free State.—Bloemfontein.

South-West Africa.—Walvis Bay, Luderitz.

In addition to the above the following ports have been proclaimed ports of export only :—St. Helena Bay, Hout Bay, Struys Bay, Hondeklip Bay, Saldanha Bay, Lambert's Bay, Port Beaufort.

(vi) *Free Warehousing Ports.*—The following places have been proclaimed free warehousing ports for the purpose of warehousing and securing goods :—Cape Town, Port Elizabeth, East London, Mossel Bay, Simonstown, Kimberley, Durban, Pietermaritzburg, Johannesburg, Pretoria, Germiston, Komatipoort, Bloemfontein, Walvis Bay, Luderitz.

(vii) *Declaration of Value.*—(a) *Imports.*—For goods subject to an *ad valorem* duty, the value of such goods shall ordinarily be taken as—

(i) the market price at which at the time of exportation such or similar goods are offered for sale, for consumption in the country from which the goods are exported, to all purchasers in the usual wholesale quantities in the ordinary course of trade in the principal markets of such country, including the cost of packages ordinarily used in these markets, but not including excise duties payable in that country, or

(ii) the f.o.b. cost of the goods to the importer, including agents' or buying commission in excess of 5 per cent., whichever is the greater.

b) *Exports.*—The value of South African goods exported is their current value in the open market at the port of shipment, including the cost of packing and packages. For *re-exports* from open stocks, the f.o.b. price is given, and in the case of exports from bond, the value recorded is that at which the goods were originally warehoused.

(viii) *Customs Investigation Officer in U.S.A.*—Since the beginning of 1923 a Customs Investigation Officer for the Union of South Africa has been established in New York for the purpose of examining the invoices and shipping documents of American and Canadian exports to the Union, inquiring into the domestic value of similar goods in America and investigating into the country of origin of Canadian goods shipped *via* the United States.

A similar officer was stationed in London at the beginning of 1926 for the purpose of investigating the values of goods shipped from the United Kingdom and the Continent of Europe.

(ix) *Duties on Spirits.*—An amendment of Act No. 9 of 1913 was effected by Act No. 27 of 1919, the main provision of which was to make retrospective any increase of duty resolved upon under the Excise Act (1913) and under the Customs Acts as regards spirits (beverages) in stock on the date of any notice of proposed increase issued under the law.

2. **Statistics of External Trade.**—Prior to July, 1905, each Colony or Territory in the Customs Union had its own statistical department recording particulars of its import, export, and inter-colonial trade. In addition, each maintained what was generally known as a Customs Union Office, where records were compiled of the trade between the parties to the Union. From such records was ascertained the amount of Customs duty due to each party in the Customs Union. In 1904 the Governments of the countries in the Union decided that it was desirable that statistics relating to the import, export, and inter-colonial trade should be kept on a uniform basis and by an office created for the purpose.

Since the coming into operation of the *South Africa Act* the compilation of trade statistics has been continued under the Union Government.

It should be noted that for statistical purposes the Protectorates of Basutoland, Swaziland, and Bechuanaland are regarded as integral parts of the Union of South Africa, and no separate information is available for their trade, whether direct to or in transit through the Union, other than the estimates for Basutoland given in Chapter I of Part II of this *Year Book.*

3. **Preference.**—The first record of preferential rates of duty is to be found in the records of the Cape Colony. From 1821 to 1830 the duty was approximately 3 per cent. *ad valorem* on British goods, and 10 per cent. on foreign goods and those imported from the East.

Again, in 1840, by an Order-in-Council, dated the 10th August, differential rated duties were imposed on certain articles and these early differential tariff rates were continued, subject to variations, until 1855, when they were abolished by the Customs Tariff Act of that year. From that time until 1903 duties of Customs were levied equally on all goods and articles imported irrespective of the country of origin or manufacture. In that year, under the Customs Union Convention concluded between the Cape Colony, Natal, the Orange River Colony, the Transvaal, and Southern Rhodesia, it was agreed as follows :—

> A rebate of Customs duties shall be granted on any goods and articles the growth, produce, or manufacture of the United Kingdom imported therefrom into the Union for consumption therein, and that a rebate should also be granted on goods and articles the growth, produce, or manufacture of any British Colony, Protectorate, or Possession granting equivalent reciprocal privileges to the Colonies and Territories in the Customs Union.

Rebates of duty were continued in subsequent Conventions, and have been continued since the constitution of the Union in favour of the United Kingdom and those British dominions which have afforded reciprocal treatment, viz., Canada, Australia,* and New Zealand.

The *Customs Tariff and Excise Duties Amendment Act*, No. 36 of 1925, makes provision for preference as a fundamental factor in the general tariff policy of the country, but its application is based upon an entirely different principle from heretofore. In addition to extending preference to a list of scheduled goods produced and manufactured in the United Kingdom (second schedule, Part I of the Act), it further provides for the extension of equivalent reciprocal privileges as between the Union and any* British dominion, colony or possession, and for tariff agreements to be entered into with foreign nations, on the principle of the most favoured foreign nation treatment, in consideration of the extension by the contracting State of equivalent reciprocal tariff privileges in respect of goods imported into its territory from the Union. These agreements are, however, subject to the limitation that they may not apply to such goods or articles, named in the second schedule, Part I, of the Act, to which preference has been granted to the United Kingdom.

The amounts of rebates permitted are set out in the customs tariff given in paragraph 5 below.

The principle of Imperial preference was adopted by the British Parliament in 1919. Preference is given on the duties in force in the United Kingdom to the following articles, the produce of countries within the British Empire, at the specified rates :—

One-third of the duty on clocks and watches, motor cars and accessories, musical instruments and accessories, cinematograph films, cutlery, gloves, lace and embroidery, hops and heavy wines.

One-fourth of duty on tobacco, cigars, cigarettes, and snuff.

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* On the 1st July, 1926, the Commonwealth Government withdrew the preferential tariff on goods produced or manufactured in the Union, and from that date the preference on Australian goods named in Part III of the Second Schedule to Act No. 36 of 1925 ceased to operate.

One-sixth of duty on chicory, cocoa, tea, coffee, silk, and artificial silk.
One-half of duty on sparkling wines, and two-fifths on light wines.
Brandy, rum, gin, and unsweetened potable spirits are rebated 2s. 6d. per proof gallon.
Sweetened wines, naphtha, and methylic alcohol, 2s. 8d. per proof gallon.
Perfumed spirits, 4s. per proof gallon.
Sugar, glucose, chutney, dried, preserved, and crystallized fruits, jams and jellies, condensed milk (sweetened), the rebate varies from 2s. to 4s. 3d. per cwt.
Saccharine and like substances, 22s. per lb.

4. **Protection.**—*Normal Tariff.*—Act No. 36 of 1925, which amends and supersedes the customs tariff formerly in force, has been designed primarily for the purpose of encouraging industrial development within the Union. A distinctive feature of the new tariff is its division into maximum and minimum rates or duties. Normally, the maximum rates are imposed and collected on all goods subject to the tariff imported into the country, but provision is made that in the event of its being reported to the Minister through the appropriate official channel that any protected industry is—

(*a*) charging unduly high prices for any product; or
(*b*) acting in a manner which tends to such restraint of trade or the establishment of such a monopoly as is injurious to the public interests; or
(*c*) maintaining unsatisfactory labour conditions;

the Governor-General may, by proclamation, after due notice has been given to the industry, declare that the minimum duty shall be levied and collected in respect of the article concerned.

Suspended Duties.—In addition to the maximum and minimum rates provided for in the tariff, provision is also made for a scheme of suspended duties to be imposed upon certain imported manufactured goods when occasion arises. These duties may be brought into force by proclamation on any specified article whenever the prevailing imposts are found to provide an inadequate protection to the industries which they are designed to assist.

Dumping Duties.—(i) The principle of a special dumping or countervailing duty was first introduced into the customs legislation of the Union by Act No. 26 of 1914 (Section 8), and became recognized as a fundamental factor in the economic development of the Union by its inclusion in the *Customs and Excise Amendment Act*, No. 23 of 1923 (Section 12). Act No. 36 of 1925 (Section 15) provides that dumping duties shall be imposed whenever, after investigation and report by the responsible official authority, the Minister is satisfied that goods which are of a class or kind produced or manufactured in the Union have been or are being exported to the Union—

(*a*) at an export price which is less than the domestic value thereof, plus the extra cost of packing and packages for export, carriage to the port of shipment, and all other expenses incidental to placing the goods on board ship ready for exportation to the Union; or
(*b*) at an export price, which, owing to the depreciated exchange value of the currency of the country in which the goods were produced or manufactured, or from which they were exported, is less than the export price of goods of the same class or kind imported into the Union from countries the exchange value of whose currency in relation to Union currency is not depreciated by more than five per centum, and from which such goods on importation are not otherwise liable to any dumping duty in terms of this section; or
(*c*) at a rate of freight lower than the rate prevailing at the date of shipment for those classes of goods usually rated for shipping purposes on the same basis, or at ballast rates of freight, or freight free, or that, by reason of the granting of rebates, refunds, or other allowances, the net amount of freight payable is lower than that prevailing at the date of shipment; or
(*d*) are being sold or offered for sale at a port of entry in the Union in the usual and ordinary course of trade for an amount which is less than the domestic value thereof, plus the extra cost of packing and packages for export, inland carriage, sea freight, insurance, and all charges to that port, including landing and delivery charges, and any duty (other than a dumping duty) payable under this Act or any amendment thereof; or
(*e*) on which a bounty has been or will be granted in respect of such goods in the country in which they were produced or manufactured or from which they were exported, by way of a bonus, rebate, subsidy, or otherwise, whether granted by a Government or other authority or person.

(ii) The dumping duties which may be imposed in terms of section 15 of the Act are—

(*a*) "ordinary" dumping duty, which shall be the difference between the export price and the domestic value plus the extra cost of packing and packages for export, carriage to the port of shipment, and all other expenses incidental to placing the goods on board ship ready for exportation to the Union; provided that such difference is greater than five per centum of the export price;

(*b*) "exchange" dumping duty, which shall be the difference between the export price of the goods in question and the export price of goods of the same class or kind imported into the Union from countries the exchange value of whose currency in relation to Union currency is not depreciated by more than five per centum, and from which such goods on importation are not otherwise liable to any dumping duty in terms of this section;

(*c*) "freight" dumping duty, which shall be the difference between the net freight paid or to be paid and the freight which would have been payable at the rate prevailing at the date of shipment, for those classes of goods usually rated for shipping purposes on the same basis; provided that such duty shall not apply to goods of which the value for duty purposes, added to the marine insurance and freight charges, exceeds ten pounds per ton of 2,240 lb.;

(*d*) "sales" dumping duty, which shall be the difference between the selling price in the Union and the domestic value plus the expenses and charges set forth in paragraph (*d*) of sub-section (i) above;

(*e*) "bounty" dumping duty, which shall be the amount of the bounty referred to in paragraph (*e*) of sub-section (i) above.

The following table gives the particulars of the proclamations issued, the country of origin, and the nature of the articles upon which dumping duties have been imposed :—

PROCLAMATION IN REGARD TO DUMPING DUTIES.

No.	Year.	Form of Dumping.	Article.	Whence.
† 83*	1921	Ordinary	Wheaten flour	Australia.
† 173*	1921	Ordinary	Wheat	Australia.
‡ 12*	1923	Ordinary	Cement	Belgium and Denmark.
‡ 19*	1923	Ordinary	Cement	Norway.
§ 44*	1923	Ordinary	Cement	Great Britain.
118	1923	(Amending Proclamations marked *.)		
† 141	1923	Freight..	Cement	Great Britain, Belgium, Denmark, Germany, Holland, Norway, and Sweden.
3	1924	Exchange	Asbestos-cement sheets	Belgium and Italy.
‖	—	Exchange	Cement and superphosphates	Belgium.
21	1924	Ordinary	Rubber hose	United States of America.
41	1924	(Amending No. 3 of 1924.)		
69	1924	Sales....	Rubber hose	United States of America.
§ 70	1924	Ordinary	Cement	Germany.
† 79	1924	Ordinary	Cement	Canada.
§ 111	1924	Ordinary	Cement	Mozambique.
156	1924	Ordinary	Butter	Australia.
† 177	1924	Ordinary	Carbonate of soda	Great Britain.
15	1925	Exchange	Asbestos-cement sheets	Yugo-Slavia.
§ 34	1925	Ordinary	Cement	Sweden.
37	1925	Exchange	Asbestos-cement sheets	France.
59	1925	Ordinary	Asbestos-cement sheets	Germany.
164	1926	Ordinary	Rubber heels	United States of America.
165	1926	Sales....	Rubber heels	United States of America.
170	1926	Ordinary	Rubber heels	Canada.
171	1926	Sales....	Rubber heels	Canada.

Free List.—The goods described in Class XV of the tariff are admitted into the Union free of customs duty subject to such conditions and regulations as the Minister may prescribe, and provided that the goods are imported for use only in the manufacturing industry for which they are declared.

5. **Customs Tariff.**—The customs tariff of the Union, established by Act No. 36 of 1925 and amending Act No. 34 of 1926, is given hereunder. The *first* schedule of the tariff is classified under fifteen principal headings; the fifteenth, however, has reference only to the free importations of dutiable materials for industrial purposes as described in paragraph 4 above. The list of the various articles included under each class is arranged in alphabetical order and against each item is placed its relative tariff number, the unit upon which the rate of duty is levied, and the minimum and maximum custom rates charged.

† Since repealed.
‡ Since repealed in so far as Denmark is concerned, but in the case of Belgium superseded by Proclamation No. 109 of 1926 under Act No. 36 of 1925.
§ Superseded by Proclamation No. 109 of 1926 under Act No. 36 of 1925.
‖ Since repealed in so far as superphosphates from Belgium are concerned, and superseded by Proclamation No. 110 of 1926 in respect of cement from Belgium.

The *second* schedule (page 605) indicates the extent of the rebate on the maximum tariff applicable to goods the product and manufacture of Great Britain and such other British dominions, colonies, or possessions, with which agreements may have been concluded for equivalent reciprocal privileges.

Tourists' Effects, Firearms, etc., Re-exported.—Upon due notice being given to the Collector of Customs at the port of shipment, and the production of proof of the original payment of duty, a refund will be made of the customs imposts levied on articles imported by *bona fide* tourists for their own use, but not intended for consumption within the Union, provided such goods are exported within six months of their importation.

Settlers' Household Effects.—A rebate of duty is allowed on the personal household effects of settlers arriving in the Union, provided that the effects are the *bona fide* property of the settler and have been in use by him prior to shipment to the Union, and that they are not intended for sale or for disposal to other persons.

The extent of the rebate of import duty on the household effects of settlers is limited to a proportionate value of £100 of effects for each adult, £50 for each child, with a maximum of £400 in respect of any one family.

CUSTOMS TARIFF.—EXPLANATORY NOTES.

Mixed Goods.—Goods mixed or made up of more than one article liable to duty under any of the classes of the tariff, and not chemically forming another distinct substance, are chargeable with the full duty payable on the article charged with the highest rate of duty and as if such article formed the whole composition.

Adulterated Leather means leather containing—

(*a*) any barium or lead compound; or

(*b*) *if vegetable tanned*—
(1) more than 2½ per cent. of mineral ash; or
(2) more than 2 per cent. of glucose;

(*c*) *if mineral tanned*—
(1) more than 2 per cent. of mineral ash other than the mineral tanning agent; or
(2) more than ½ per cent. of glucose;

(*d*) *if tanned by vegetable and mineral agents combined*—
(1) more than 2 per cent. of mineral ash other than the mineral tanning agent; or
(2) more than ½ per cent. of glucose.

Proof means the strength of proof as ascertained by Sikes' hydrometer.

Proof Spirits means spirits which, at a temperature of 51° F., weigh 12/13ths of an equal measure of distilled water.

Bees, Honey, and Beeswax, etc.—The introduction of bees, their larvae or eggs, into the Union from any place oversea is, except under certain restrictions, prohibited; and the prohibition also applies to honey, used beehives, used beehive accessories or appliances, or anything which has been used to contain or manipulate bees, honey, or beeswax. The introduction into the Union from any place oversea or from any place in South Africa which is not a British Possession or Protectorate, of beeswax, whether crude or refined, or foundation comb, is prohibited, except on permit from the Department of Agriculture.

Bulk Goods.—The term *bulk* is defined as follows:—

(i) Loose without packing or loose in barrels, carboys, casks, drums, kegs, or other single outside package. A few battens used to keep drums together, provided they do not constitute a *bona fide* outside package, will not be held to do away with the bulk nature of the goods.

(ii) That the net contents of any immediate container of goods weigh not less than 10 lb. or measure not less than 1 imperial gallon.

Labelling of Net Weights on Containers.—All tins and other receptacles of reputed weights containing ingredients liable to a rated duty must bear, printed conspicuously across *that portion of the label which is usually presented to the public*, the actual weight of the contents; otherwise duty will be levied on the reputed weight or measures.

NOTE.—Goods consigned for delivery in the Union from places outside the Union in containers marked with a specified weight or measure are not permitted to be cleared for entry unless the specified weight or measure is in accordance with the denominations authorized by the *Weights and Measures Act*, No. 32 of 1922, and unless the goods are made up in such quantities or measures as are proclaimed by regulation published in the *Government Gazette* in accordance with section 48 of the Act.

CLASSIFICATION OF CUSTOMS TARIFF.

I. Animals, agricultural, and pastoral products and foodstuffs.
II. Ales, spirits, wines, and beverages.
III. Tobacco and Manufactures thereof.
IV. Fibres, yarns, textiles, and apparel.
V. Metals, metal manufactures, machinery, and vehicles.
VI. Minerals, earthenware, and glassware.
VII. Oils, waxes, resin, paints, and varnishes.
VIII. Drugs, chemicals, and fertilizers.
IX. Leather, rubber, and manufactures thereof.
X. Wood, cane, and wicker, and manufactures thereof.
XI. Books, paper, and stationery.
XII. Jewellery, timepieces, fancy goods, and musical instruments.
XIII. Miscellaneous.
XIV. General.
XV. Materials for industrial purposes.

FIRST SCHEDULE.

TARIFF OF CUSTOMS DUTIES.

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
Class I.—ANIMALS, AGRICULTURAL AND PASTORAL PRODUCTS AND FOODSTUFFS.			
1. Animals, living—			
(*a*) Cattle for slaughter	each	1 10 0	1 10 0
(*b*) Sheep for slaughter	each	0 5 0	0 5 0
(*c*) Mules and geldings	each	1 0 0	1 0 0
(*d*) Bred in South Africa imported overland, not being for slaughter	—	Free	Free
(*e*) Other	—	Free	Free
2. (*a*) Baking powder	per lb. or *ad valorem* whichever	0 0 4 or 30 % duty shall be	0 0 4 or 30 % the greater.
(*b*) Yeast	per lb.	0 0 2	0 0 3
3. Biscuits, bread, cakes, puddings, and pastry	*ad valorem*	25 %	25 %
4. Bones, feathers, ivory, hoofs, horns, shells, skins, teeth, wool, and other parts of animals, fishes or reptiles, not being manufactured, polished or further prepared than dried or cleaned, but in their raw and unmanufactured state	—	Free	Free
5. Butter	per lb.	0 0 2	0 0 2½
6. Butterine and butter substitutes, margarine, ghee, compound lard, cottolene, nuttose, and similar substances for use as food or for cooking	per lb.	0 0 3½	0 0 4
7. Casein : in bulk	—	Free	Free
8. Cheese—			
(*a*) Made from milk or cream, from which no fat has been abstracted, and to which no animal or vegetable fat has been added	*ad valorem* or per lb. whichever	25 % or 0 0 3½ duty shall be	30 % or 0 0 4 the greater.
(*b*) Other	*ad valorem* and per lb.	25 % and in addition 0 0 6	25 % and in addition 0 0 6
9. Chicory root, raw or dried only	per lb.	0 0 2	0 0 2
10. Chicory and substitutes for coffee or chicory	per lb.	0 0 4	0 0 4
11. Chillies and turmeric—			
(*a*) Chillies, dried	per lb.	0 0 2	0 0 2
(*b*) Turmeric, ground	per lb.	0 0 2	0 0 2
(*c*) Turmeric, unground	—	Free	Free
12. Cocoa—			
(*a*) Beans, raw	—	Free	Free
(*b*) Nibs and shells	per lb.	0 0 1	0 0 1
(*c*) Mass, paste or slab, unsweetened; block chocolate, unsweetened; and cocoa butter	per lb.	0 0 2	0 0 2
(*d*) Other unsweetened; cocoa mixed with milk or other food substances, except sugar	per lb.	0 0 2½	0 0 2½
(*e*) Sweetened cocoa, block chocolate (couverture) sweetened for use in the confectionery manufacturing industry	per lb.	0 0 3	0 0 3
13. Coffee—			
(*a*) Raw	per lb.	0 0 0¾	0 0 0¾
(*b*) Roasted or ground	per lb.	0 0 2	0 0 2
(*c*) Mixed	per lb.	0 0 3	0 0 3
14. Confectionery—			
(*a*) Slab chocolate : plain, milk, nut or fruit	per lb. or *ad valorem* whichever	0 0 4 or 30 % duty shall be	0 0 4 or 30 % the greater.
(*b*) Plain or fancy of all kinds, compounded, made or preserved with sugar; sweetened cocoa or chocolate, n.e.e.; sweatmeats; crystallized fruits, candied or preserved ginger (not being for manufacturing purposes), and chow-chow; Christmas stockings, bon-bons, surprise packets, and crackers	per lb. or *ad valorem* whichever	0 0 3½ or 35 % duty shall be	0 0 3½ or 35 % the greater.
(Not including medicinal preparations properly classed as apothecary-ware.)			
(*c*) Ginger for manufacturing purposes, preserved in syrup or brine : in packages of not less than 100 lb. net weight	per lb.	0 0 1½	0 0 1½

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS I.—ANIMALS, AGRICULTURAL AND PASTORAL PRODUCTS AND FOODSTUFFS (*continued*).		£ s. d.	£ s. d.
15. Corn and grain (not including infants' foods, patent or proprietary foods, or corn or grain prepared as vegetables)—			
(*a*) Wheat—			
(i) In the grain	per 100 lb.	0 1 5	0 1 7
(ii) Ground or otherwise prepared	per 100 lb.	0 3 4	0 3 8
(iii) Bran, wheaten	per 100 lb.	0 1 0	0 1 2
(*b*) Barley, buckwheat, kaffir corn, millet, oats, and rye—			
(i) In the grain or raw	per 100 lb.	0 2 0	0 2 0
(ii) Malted	per 100 lb.	0 3 0	0 4 0
(iii) Ground or otherwise prepared	per 100 lb.	0 2 9	0 3 0
(*c*) Maize—			
(i) In the grain	per 100 lb.	0 2 0	0 2 0
(ii) Samp	per 100 lb.	0 2 6	0 2 9
(iii) Ground or otherwise prepared	per lb.	0 0 1	0 0 1½
(*d*) Rice in the grain	per 100 lb.	0 1 0	0 1 0
16. Cream of tartar	per lb.	0 0 3	0 0 3
17. Eggs—			
(*a*) In the shell	per lb.	0 0 1	0 0 1
(*b*) Whole or part contents, liquid or dried	per lb.	0 0 3	0 0 3
18. Extracts and essences of all kinds for food or flavouring, n.e.e., including concentrated soup, but not including virol, roboleine, and similar tonic foods	*ad valorem*	25 %	25 %
19. Fish—			
(*a*) Fry and ova	—	Free	Free
(*b*) Fresh, dried, cured or salted of South African taking	—	Free	Free
(*c*) Caviare, lax, lobster, and anchovies	*ad valorem*	20 %	25 %
(*d*) Fish pastes, potted or tinned	per lb.	0 0 3	0 0 3
(*e*) Other	per lb.	0 0 1	0 0 1½
20. Fodder : chaff, hay, lucerne, oat-hay, oil-cake, and other fodder, n.e.e.	per 100 lb.	0 1 10	0 2 0
21. Foods—			
(*a*) Specially prepared for infants, excluding virol, roboleine, and similar tonic foods	*ad valorem*	10 %	10 %
(*b*) Patent or proprietary farinaceous and cereal foods, including maizena, but not including oatmeal and rolled oats	*ad valorem*	20 %	25 %
22. Fruits—			
(*a*) Fresh or green	*ad valorem*	Free	5 %
(*b*) Bottle, tinned or otherwise preserved, except crystallized fruits ; but including pulp and candied peel	per lb.	0 0 2	0 0 2½
(*c*) Dates—			
(1) In bulk	per lb.	0 0 0½	0 0 0½
(2) In cartons	per lb.	0 0 1	0 0 1
(*d*) Dried, of all kinds, not including dates and nuts	per lb.	0 0 2	0 0 2½
23. Gelatine, animal or vegetable—			
(*a*) Not in bulk	*ad valorem*	20 %	20 %
(*b*) In bulk	*ad valorem*	Free	5 %
24. Glue : in bulk	*ad valorem* plus a suspended duty of	15 %	15 %
	ad valorem plus a suspended duty of	Free	5 %
25. Hair : horsehair or other animal hair not being further prepared than dyed, dried or cleaned	—	10 %	10 %
26. Hops : in bulk	*ad valorem*	Free	Free
27. Jams, jellies, and honey ; pudding, cake, and jelly powders	per lb.	0 0 2½	0 0 2½
	ad valorem	30 %	30 %
	whichever	duty shall be	the greater.
28. Lard and edible meat fats	per lb.	0 0 1	0 0 1½
29. Macaroni, spaghetti and vermicelli	*ad valorem*	20 %	30 %
30. Meats, soups (not concentrated) and similar substances used as food, but not including extracts and essences—			
(*a*) Bacon and ham	per lb.	0 0 1½	0 0 3
(*b*) All other	per lb.	0 0 1	0 0 1½
31. Meat pastes, potted or tinned	per lb.	0 0 3	0 0 3
32. Milk (including cream), condensed, desiccated or preserved—			
(*a*) Full cream	per 100 lb.	0 8 4	0 10 5
	plus	a suspended	duty of
(*b*) Skimmed or separated	per 100 lb.	0 2 1	0 2 1
	per lb.	0 0 6	0 0 6

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS I.—ANIMALS, AGRICULTURAL AND PASTORAL PRODUCTS AND FOODSTUFFS (*continued*).		£ s. d.	£ s. d.
33. Nuts, edible—			
(*a*) Coconuts, whole	*ad valorem*	3 %	3 %
(*b*) Coconut, desiccated, unsweetened	*ad valorem*	20 %	20 %
(*c*) Coconut, desiccated, sweetened	*ad valorem*	30 %	35 %
(*d*) Other, n.e.e.	per lb.	0 0 2	0 0 2½
34. Onions and garlic, not preserved	per lb.	0 0 0½	0 0 0½
35. Peas and beans and other leguminous seeds not elsewhere provided for, including ground nuts—			
(*a*) Dried	per 100 lb.	0 1 10	0 2 0
(*b*) Ground or otherwise prepared	per 100 lb.	0 2 6	0 2 9
(*c*) Preserved as a vegetable	*ad valorem*	20 %	20 %
36. Pickles—			
(*a*) Pickles, sauces, chutneys, and other condiments	per lb.	0 0 2	0 0 2½
(*b*) Soy, in packages containing over 10 gallons and of weight not less than 13½ lb. to the imperial gallon when imported by manufacturers of condiments	per lb.	0 0 1½	0 0 1½
37. Potatoes, not preserved	per 100 lb.	0 1 10	0 2 0
38. Rennet	—	Free	Free
39. Salt : table, rock, dairy, and common	per 100 lb. or *ad valorem* whichever	0 0 9 20 % duty shall be	0 0 9 20 % the greater.
40. Seeds, bulbs, plants, trees, and tubers : for planting and sowing only, not including those ordinarily used for food or fodder	—	Free	Free
41. Spices—			
(*a*) Not ground or crushed	per lb.	Free	0 0 0½
(*b*) Other	per lb.	0 0 2	0 0 2½
42. Starch—			
(*a*) Potato farina	*ad valorem*	Free	3 %
(*b*) Other	per lb.	0 0 1	0 0 1
43. Sugar and sugar substitutes—			
(*a*) Candy, loaf, castor, icing, and cube sugar	per 100 lb. plus per 100 lb.	0 6 0 a suspended —	0 6 0 duty of 0 3 6
(*b*) Other kinds of sugar, including golden and maple syrup, molasses, saccharum, glucose, and treacle	per 100 lb. plus per 100 lb.	0 4 6 a suspended —	0 4 6 duty of 0 3 6
(*c*) Saccharine and other similar sweetening substances, and materials capable of conversion into such substances	per lb.	1 0 0	1 0 0
NOTE.—In the case of sugar upon which bounties are granted in the country of origin, an additional duty equal to the amount of such bounty is to be levied.			
44. Tapioca, sago, and arrowroot	*ad valorem*	20 %	20 %
45. Tea—			
(*a*) In packets or tins, not exceeding 10 lb. each in weight	per lb.	0 0 6	0 0 6
(*b*) In larger containers	per lb.	0 0 4	0 0 4
46. Vegetables—			
(*a*) Fresh or green, but not including potatoes, onions or garlic	*ad valorem*	Free	Free
(*b*) Tinned or otherwise preserved	*ad valorem*	20 %	20 %
47. Vinegar, per gallon of any strength, not exceeding 6 per cent. by weight of acetic acid—			
(*a*) In bottles or vessels of a capacity of not more than 1 imperial quart	per imp. gallon	0 1 0	0 1 0
(*b*) In larger vessels or in bulk	per imp. gallon	0 0 6	0 0 6
Class II.—ALES, SPIRITS, WINES, AND BEVERAGES.			
48. (*a*) Ale, beer, cider, and perry : all kinds of strength, exceeding 3 per cent. of proof spirit	per imp. gallon	0 2 9	0 2 9
(*b*) Stout, exceeding 3 per cent. of proof spirit	per imp. gallon	0 2 3	0 2 3
49. Beverages—			
(*a*) Fruit juices, cordials, and syrups, n.e.e.	*ad valorem*	25 %	25 %
(*b*) Other kinds, n.e.e., and not exceeding 3 per cent. of proof spirit	*ad valorem*	25 %	25 %
50. Spirits—			
(*a*) Perfumed	per imp. gallon and in addition *ad valorem*	2 10 0 25 %	2 10 0 25 %
(*b*) Liqueurs, cordials, and mixed potable spirits, exceeding 3 per cent. of proof spirit	per imp. gallon or *ad valorem* whichever	1 18 6 25 % duty shall be	1 18 6 25 % the greater.

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS II.—ALES, SPIRITS, WINES, AND BEVERAGES (*continued*).			
50. Spirits (*continued*)—			
(*c*) Other potable spirits, exceeding 3 per cent. of proof spirit	per imp. proof gallon	2 5 0	2 5 0
[No allowance will be made for under-proof in excess of 15 per cent.]			
(*d*) Medicinal preparations (liquid), essences, syrups, and tinctures; containing over 3 per cent. of proof spirit and including those made from wine	per imp. gallon or *ad valorem*	1 18 6 or 25 %	1 18 6 or 25 %
[Such spirits if and when overproof shall be spe declared, and the duty on the mixture shall proof gallon, or 25 per cent. *ad valorem*, which	whichever cially entered a then be leviable ever duty shall	duty shall be nd the strength at £1. 17s. 6d. p be the greater.]	the greater. overproof er imperial
(*e*) Collodion and iodiser, containing over 3 per cent. of proof spirit	per imp. proof gallon	1 17 6	1 17 6
[No allowance will be made for under-proof in excess of 15 per cent.]			
(*f*) Methylated spirits and solidified alcohol for burning purposes, containing over 3 per cent. of proof spirit	per imp. proof gallon	1 17 6	1 17 6
(*g*) Wood naphtha and methyl alcohol	*ad valorem*	20 %	20 %
(*h*) Toilet preparations (liquid), containing over 3 per cent. of proof spirit	per imp. gallon or *ad valorem*	1 18 6 or 40 %	1 18 6 or 40 %
[Such spirits if and when overproof shall be spe declared, and the duty on the mixture shall proof gallon, or 40 per cent. *ad valorem*, which	whichever cially entered a then be leviable ever duty shall	duty shall be nd the strength at £1. 17s. 6d. p be the greater.]	the greater. overproof er imperial
51. Waters: mineral, aerated, and table—			
(*a*) In bottles containing each not more than ¾ reputed pint	per doz. bottles	0 0 9	0 0 9
(*b*) In bottles containing each more than ¾ reputed pint and not more than 1¼ reputed pint	per doz. bottles	0 1 0	0 1 0
(*c*) In larger size bottles or other containers	per imp. gallon	0 1 0	0 1 0
52. Wines—			
(*a*) Still wines, not exceeding 20 per cent. of proof spirit	per imp. gallon	0 4 0	0 4 0
(*b*) Still wines, exceeding 20 per cent. of proof spirit, but not exceeding 50 per cent	per imp. gallon	0 8 0	0 8 0
(*c*) Sparkling wines	per imp. gallon (and in additi abo	0 12 6 on 15 % *ad valo* ve classes of wi	0 12 6 *rem* on all the ne).
NOTE.—Wines containing less than 3 per cent. of and wines containing more than 50 per	proof spirit are cent. of proof s	not included in pirit are classed	the above, as spirits.
Class III.—TOBACCO AND MANUFACTURES THEREOF.			
53. Cigars and cigarillos	per lb. and in addition	0 8 6	0 8 6
54. Cigarettes	*ad valorem* per lb. and in addition	15 % 0 6 0	15 % 0 6 0
55. Goorak, or gooracco, and hookah mixture, and all imitations or substitutes therefor or for tobacco	*ad valorem*	15 %	15 %
56. Snuff	per lb.	0 6 0	0 6 0
57. Tobacco, manufactured	per lb.	0 4 0	0 4 0
58. Tobacco, unmanufactured	per lb.	0 5 0	0 5 0
	per lb.	0 3 6	0 3 6
Class IV.—FIBRES, YARNS, TEXTILES, AND APPAREL.			
59. Bags and bagging (not including paper or leather bags)—			
(*a*) Bags, n.e.e., for flour, grain, manure, local manufactures and produce, sugar, wool, coal, and minerals	—	Free	Free
(*b*) Jute bags, bagging, and sacking in the piece	— plus *ad valorem*	Free a suspended 15 %	Free duty of 20 %
(*c*) Linen and cotton bags, for salt, flour, sugar, tobacco, and other local manufactures	— plus *ad valorem*	Free a suspended 15 %	Free duty of 20 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS IV.—FIBRES, YARNS, TEXTILES, AND APPAREL (*continued*).		£ s. d.	£ s. d.
60. Battery cloth and baize : gauze, matting, sieving, and screening, not being of metal, for use in connexion with machinery ; brattice cloth, filter cloth, bolting cloth, and mill silk ; but not including coconut matting	—	Free	Free
61. Blankets and rugs, shawls, n.e.e., sheets commonly used as blankets or rugs and known as kaffir sheets, and kadungas and similar body-wraps—			
(*a*) Weighing more than 12 oz. each, and imported singly or in pairs or in the piece—			
(i) Containing 50 per cent. or more of cotton	per lb. with a maximum of	0 1 0	0 1 0
	each or	0 2 6	0 2 6
	ad valorem whichever	25 % duty shall be	25 % the greater.
(ii) Containing less than 50 per cent. of cotton	each or	0 2 6	0 2 6
	ad valorem whichever	25 % duty shall be	25 % the greater.
(*b*) Second-hand, for sale	each	0 5 0	0 5 0
(*c*) Blanketing and kaffir sheeting	per lb. or	0 1 0	0 1 0
	ad valorem whichever	25 % duty shall be	25 % the greater.
62. Candlewick	—	Free	Free
63. Carpets and other floor covering—			
(*a*) Carpets, floor rugs and mats (other than coir), linolcum and floorcloth, and carpet felt	*ad valorem*	20 %	20 %
(*b*) Coir mats and coir mattings	*ad valorem*	25 %	25 %
64. Cheese bandages and caps	—	Free	Free
65. Clothing—			
(*a*) Bespoke, or made by a tailor or dressmaker to the order of an individual (not including underclothing)	*ad valorem*	30 %	30 %
(*b*) Ready-made—			
(i) New coats, vests, and trousers for men (not including boys' and infants' and not including oilskin clothing.)	*ad valorem*	20 %	20 %
(ii) Other, including underclothing, n.e.e.	*ad valorem*	15 %	15 %
(*c*) Shirts, collars, and pyjamas of silk or artificial silk or mixtures thereof with any other material	*ad valorem*	25 %	25 %
(*d*) Second-hand, for sale—			
(i) Overcoats	each	0 3 0	0 3 0
	then	up to 30th June, 1926 0 3 6	up to 30th June, 1926 0 3 6
	thereafter	up to 30th June, 1927 0 4 0	up to 30th June, 1927 0 4 0
	or	in each case	in each case
	ad valorem whichever	25 % duty shall be	25 % the greater.
(ii) Coats, vests, trousers, cloaks, mantles or shawls	each	0 2 6	0 2 6
	then	up to 30th June, 1926 0 3 0	up to 30th June, 1926 0 3 0
	thereafter	up to 30th June, 1927 0 3 6	up to 30th June, 1927 0 3 6
	or	in each case	in each case
	ad valorem whichever	25 % duty shall be	25 % the greater.
66. Coir, including twisted coir yarn, cotton, fibre, flax, flock, grass, hemp, jute, and moss : raw, waste, and unmanufactured	—	Free	Free
67. Furs : not being raw and unmanufactured skins ; including muffs and articles of apparel (except gloves) made from furs	*ad valorem*	25 %	25 %
68. Gloves : all except gloves made wholly of rubber and gloves specially constructed for industrial and sporting purposes	*ad valorem*	10 %	15 %
69. Hats, caps, and bonnets—			
(*a*) Men's, second-hand, for sale ; and second-hand hoods	each	0 3 6	0 3 6
(*b*) Ladies', trimmed	*ad valorem*	30 %	30 %
NOTE.—Linings, bands, and borders shall not constitute trimming.			
(*c*) Other	*ad valorem*	15 %	20 %
70. Hosiery, namely : socks and stockings	*ad valorem*	10 %	15 %
71. Laces, lace curtaining and flouncing, and embroidery : in the piece or in the form of insertions or medallions	*ad valorem*	15 %	20 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS IV.—FIBRES, YARNS, TEXTILES, AND APPAREL (*continued*).			
72. Leather, imitation; including pegamoid, rexine, and similar materials used for upholstering....	—	Free	Free
73. Millinery, drapery, haberdashery, and textile articles of furnishing and napery, n.e.e.....	*ad valorem*	20 %	20 %
74. Nets and netting (not wire)—			
(*a*) Fruit tree netting.....	—	Free	Free
(*b*) Trawl nets and drag nets for fishing.....	—	Free	Free
75. Piece-goods—			
(*a*) Bookbinders' cloth.....	—	Free	Free
(*b*) Canvas, not less than 8 oz. in weight per yard of 28½ in. in width.....	—	Free	Free
76. Piece-goods, not being blanketing or kaffir sheeting—			
(*a*) Cotton (that is, piece-goods containing 50 per cent. or more of cotton), the free-on-board price of which per yard—			
(i) Does not exceed 1s. 3d.....	*ad valorem*	7½ %	12½ %
(ii) Exceeds 1s. 3d.....	*ad valorem*	12½ %	12½ %
NOTE.—In the case of piece-goods exceeding 30 in. in width, "yard" shall mean 36 in. by 30 in. in width, and the price shall be calculated proportionately to the width.			
(*b*) Of wool, cotton or hair, or mixtures thereof, containing less than 50 per cent. of cotton..	*ad valorem* plus *ad valorem*	5 % a suspended 10 %	5 % duty of 10 %
(*c*) All other woven or knitted fabrics in the piece, n.e.e.....	*ad valorem*	15 %	15 %
77. Quilts, padded.....	*ad valorem*	25 %	25 %
78. Rope and cordage—			
(*a*) For drilling, driving, and water boring.....	—	Free	Free
(*b*) Other, n.e.e.....	*ad valorem*	20 %	20 %
79. Shawls: cashmere, lace, silk, and knitted or crocheted; and other shawls weighing not more than 12 oz. each.....	*ad valorem*	20 %	25 %
80. Threads, yarns, cottons, silks, and twists: sewing, knitting, and crochet.....	*ad valorem*	10 %	10 %
81. Twine—			
(*a*) Seaming and binding, and harvest yarn...	*ad valorem* plus *ad valorem*	Free a suspended 10 %	5 % duty of 10 %
(*b*) Jute and hemp yarns (unfinished), for the twine and rope industry.....	*ad valorem*	10 %	10 %
(*c*) Other.....	*ad valorem*	20 %	20 %
Class V.—METALS, METAL MANUFACTURES, MACHINERY, AND VEHICLES.			
82. Airships, aeroplanes, and other aircraft, including completed parts thereof.....	—	Free	Free
83. Barrages: structural steelwork for, and the equipment directly connected with and essential to the construction of; for irrigation and other water supply purposes.....	*ad valorem*	Free	3 %
84. Baths, metal; and bath, sink and lavatory plugs, washers, wastes, and overflows.....	*ad valorem*	20 %	20 %
85. Battery shoes and dies.....	*ad valorem*	Free	3 %
86. Bicycles, tricycles, motor cycles and sidecars; including spare parts and accessories, but not electric lamp bulbs, tyres, and tubes, when imported separately.....	*ad valorem*	15 %	20 %
87. Bolts, nuts, rivets, screws, nails, and washers....	*ad valorem*	Free	3 %
88. Boilers, steam, for industrial purposes, and feed water heaters for the same; and boiler tubes..	—	Free	Free
89. (*a*) Buckets, skips, trucks, and tubs, wheeled or otherwise, for haulage or propulsion (except by locomotives) on rails or wires, and not intended for agricultural purposes; and metal shaft sets.....	*ad valorem* plus *ad valorem*	Free a suspended 15 %	5 % duty of 15 %
(*b*) Rails, not exceeding 30 lb. per running foot	*ad valorem*	Free	5 %
90. Buckets, household and sanitary.....	*ad valorem*	20 %	25 %
91. Bullion (in the bar or sheet), coin, and specie....	—	Free	Free
92. Bungs, metal.....	*ad valorem*	Free	3 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS V.—METALS, METAL MANUFACTURES, MACHINERY, AND VEHICLES (*continued*).		£ s. d.	£ s. d.
93. Carriages, carts, coaches, and wagons—			
(*a*) New	*ad valorem*	25 %	25 %
(*b*) Axles, springs, steps, and other metal parts, not ordinarily made in the Union	*ad valorem*	Free	3 %
(*c*) Finished parts, n.e.e.	*ad valorem*	25 %	25 %
(*d*) Second-hand	per vehicle and in addition shall the duty	10 0 0 15 % *ad valorem* be less than 25	10 0 0 , but in no case % *ad valorem*.
94. Cash registers and calculating machines	*ad valorem*	15 %	20 %
95. Chains for hauling	*ad valorem*	Free	3 %
96. Chimneys : metal (smoke stacks)	*ad valorem*	20 %	20 %
97. Cranes, winches, n.e.e., hoisting crabs, chain blocks, spiral shutes, gravity conveyors, and shears	*ad valorem*	Free	3 %
98. Crown corks and similar stoppers (not being screw stoppers or swing stoppers), made of metal or other material, used alone or in combination with cork or other substances as stoppers for bottles and jars of common glass	per gross	0 0 3	0 0 3
99. Cutlery, not gold or silver, nor gold or silver-plated	*ad valorem*	15 %	20 %
100. Cylinders—			
(*a*) For use, or used, as containers of oxygen, carbonic acid or other gases under pressure, or of compressed air (not being parts of acetylene gas lamps)	*ad valorem*	Free	3 %
(*b*) Other, and empty metal drums	*ad valorem*	15 %	20 %
101. Dairy utensils and machinery—			
(*a*) Milk cans and buckets	*ad valorem*	15 %	20 %
(*b*) Cheese moulds, tinned	*ad valorem*	Free	5 %
(*c*) Other dairy utensils and machinery	—	Free	Free
(*d*) Metal casings, for the manufacture of cow stalls	—	Free	Free
102. Enamelware and hollowware—			
(*a*) Enamelled lamp shades and reflectors	*ad valorem* plus	Free a suspended	5 % duty of
(*b*) Enamelware, n.e.e.	*ad valorem*	20 %	20 %
	ad valorem plus	15 % a suspended	20 % duty of
(*c*) Hollowware, n.e.e.	*ad valorem*	10 %	10 %
	ad valorem	15 %	20 %
103. (*a*) Engines and motors, for fishing and whaling boats and mercantile marine purposes, and trawl and whaling winches, not including spare parts	—	Free	Free
(*b*) Engines and motors, for fitting into vessels built in the Union, of types not enumerated in paragraph (*a*), not including spare parts	*ad valorem*	10 %	10 %
(*c*) Spare parts of engines, motors, and winches, enumerated in paragraphs (*a*) and (*b*)	*ad valorem*	20 %	20 %
104. Fencing material : droppers, gates, hurdles, posts, standards, strainers, staples, stiles, winders, and other materials or fastenings of metal ordinarily used for agricultural and railway fencing, but not including wire and wire netting	—	Free	Free
105. Ferro-chrome, ferro-manganese, and ferro-silicon : in bulk	—	Free	Free
106. Filing cabinets, steel	*ad valorem*	25 %	25 %
107. (*a*) Filters : being machinery, apparatus, and appliances directly connected with and essential to the construction of filtering or water-purifying plants, attached to or used in connexion with a public water supply system	—	Free	Free
(*b*) Filters : power-driven, for the purification of oil	*ad valorem*	Free	5 %
108. Firearms—			
(*a*) Guns and rifles, including barrels therefor, single, n.e.e.	per barrel	1 0 0	1 0 0
(*b*) Guns and rifles, including barrels therefor, double and other	per barrel	0 15 0	0 15 0
(*c*) Revolvers and pistols	each	0 5 0	0 5 0
and in addition in the case of (*a*), (*b*), and (*c*)	*ad valorem*	20 %	20 %
(*d*) Gun and rifle furniture	*ad valorem*	20 %	20 %
(*e*) Rifles, miniature, of a calibre not exceeding ·22, and single-barrelled shot guns of a calibre not exceeding ·420, and barrels therefor	each	0 15 0	0 15 0
109. Fire escapes and fire extinguishing appliances and apparatus	—	Free	Free

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS V.—METALS, METAL MANUFACTURES, MACHINERY, AND VEHICLES (*continued*).			
110. Furniture—			
(*a*) Metal bedsteads	*ad valorem*	15 %	20 %
(*b*) Metal springs for furniture	*ad valorem*	Free	3 %
(*c*) Other metal furniture, n.e.e.	*ad valorem*	20 %	20 %
111. Gauze, sieving, and screening: of metal, for use in connexion with machinery, including copper gauze for dynamo brushes	*ad valorem* plus	Free a suspended 17 %	3 % duty of 17 %
112. Gold and silver leaf	*ad va'orem*	Free	5 %
113. Hardware, n.e.e.	*ad valorem*	20 %	20 %
114. Horse, mule, and donkey shoes	*ad va'orem*	20 %	20 %
115. Lamp bulbs, electric—			
(*a*) Projector type	*ad valorem*	Free	5 %
(*b*) Radiator type	*ad valorem*	15 %	20 %
(*c*) Motor and motor-cycle headlights	per 100	Free	0 10 0
(*d*) Motor and motor-cycle side, tail and dash lights	per 100	Free	0 5 0
(*e*) Flashlights	per 100	Free	0 2 6
(*f*) Carbon filament	per 100	Free	0 5 0
(*g*) Vacuum type, n.e.e.—			
Not exceeding 60 watts	per 100	Free	0 5 0
Exceeding 60 watts	per 100	Free	0 10 0
(*h*) Gas-filled type, n.e.e.—			
Not exceeding 100 watts	per 100	Free	0 10 0
Exceeding 100 watts	per 100	Free	1 0 0
116. Lamps and lampware—			
(*a*) Metal parts for the manufacture of acetylene gas lamps	—	Free	Free
(*b*) Miners' safety lamps (except acetylene) and racks therefor	*ad valorem*	Free	3 %
(*c*) Miners' hand and bucket lamps, acetylene.	each or *ad valorem* whichever	0 1 6 or 25 % duty shall be	0 1 6 or 25 % the greater.
(*d*) Electric hand lamps and torches	*ad valorem*	20 %	20 %
(*e*) Lamp shades and reflectors, of glass or metal, for gas and electric lighting, n.e.e.	*ad valorem*	Free	5 %
(*f*) Other, n.e.e.; including lanterns, but not parts of motor vehicles or cycles	*ad valorem*	20 %	20 %
117. Lifts, hydraulic or electrical, including the gates; and lifting jacks	*ad valorem*	3 %	3 %
118. Machinery, apparatus, appliances, and implements (not specially provided for, and not including material, domestic machines or vehicles)—			
(*a*) For agricultural purposes	—	Free	Free
(*b*) Fixed plant and machinery for factory installation, but not including structural steelwork for staging and platforms	—	Free	Free
(*c*) For mining purposes, n.e.e.	*ad valorem*	Free	3 %
(*d*) Rock drill spares, and metal liners for tube mills	*ad valorem*	17 %	20 %
(*e*) Plates and frames for sugar filter-presses	*ad valorem*	17 %	20 %
(*f*) Other, for manufacturing and industrial purposes, including machinery for power laundries, but not including structural steelwork for staging and platforms	*ad valorem*	Free	3 %
119. (*a*) Machinery, apparatus, appliances, implements, and electrical material used in connexion therewith, for the generation, storage, transmission, distribution of, and lighting by gas or electric power, and machinery for the conversion or transformation of electric power; but not including acetylene lamps, hand and portable lamps, lampshades and reflectors, batteries and bulbs elsewhere provided for, electric fans, and parts or accessories of motor vehicles or cycles	*ad valorem*	Free	5 %
(*b*) Batteries, electrical: wet or dry, primary or secondary, including accumulators, except those of which each cell or unit is of a capacity greater than 150 amperes	*ad valorem* plus *ad valorem*	10 % a suspended 15 %	15 % duty of 15 %
Metals:—			
120. Aluminium: in plain, perforated or corrugated sheets, but otherwise unmanufactured, and foil	—	Free	Free
121. Brass, copper and composition metal: in plain or perforated sheets, but otherwise unmanufactured	—	Free	Free

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS V.—METALS, METAL MANUFACTURES, MACHINERY, AND VEHICLES (*continued*).			
122. Iron and steel—			
(*a*) In blocks, ingots, pigs, billets, slabs, blooms, and like crude manufactures: and scrap..	*ad valorem*	Free	3 %
(*b*) Plates and sheets: plain, corrugated or galvanized, including tinplate, but not including lacquered, enamelled, varnished, printed, lithographed or embossed.....	*ad valorem*	Free	3 %
(*c*) Angle, bar, channel, hoop, rod, H, T, and similar iron or steel, not perforated or put together or worked up in any way, and not specially provided for; and baling clips....	*ad valorem*	Free	3 %
(*d*) Drill steel.....	*ad valorem*	Free	3 %
(*e*) Tool steel.....	*ad valorem*	Free	3 %
(*f*) Hoop iron and hoop steel, shaped or fashioned for cooperage.....	—	Free	Free
(*g*) Metal parts of steel window frames.....	*ad valorem*	15 %	15 %
123. Lead: sheet and foil.....	—	Free	Free
124. Tin and zinc: plate and sheet, plain or perforated, but otherwise unmanufactured; not including lacquered, enamelled, varnished, printed, lithographed or embossed plates or sheets; and tin foil.....	—	Free	Free
125. Zinc: fume, dust, and shavings.....	—	Free	Free
126. Metal of all sorts, other than iron and steel and precious metals, including brazing and soldering alloys, and welding electrodes: in rods, bars, blocks, ingots, and pigs; and scrap metal, n.e.e.	—	Free	Free
127. Metal sheets, metal badges, metal name or number plates, and similar articles—			
(*a*) Enamelled, all.....	*ad valorem*	30 %	30 %
(*b*) Printed, lithographed or embossed.....	*ad valorem*	15 %	25 %
(*c*) Lacquered or varnished.....	*ad valorem*	20 %	20 %
128. Meters, electricity—			
(*a*) Of less than 50 amperes.....	each	Free	0 2 6
(*b*) Of 50 amperes, and not exceeding 100 amperes	each	Free	0 5 0
(*c*) Exceeding 100 amperes.....	each	Free	0 10 0
129. Motor-cars—			
(*a*) Of a free-on-board value not exceeding £400	*ad valorem*	20 %	20 %
(*b*) Of a free-on-board value exceeding £400, but not exceeding £600.....	*ad valorem*	22 %	22 %
(*c*) Of a free-on-board value exceeding £600....	*ad valorem*	25 %	25 %
(*d*) Second-hand, imported by individuals, and not being for sale.....	*ad valorem*	20 %	20 %
(*e*) Chassis (not including rubber tyres and tubes) imported for bodies to be manufactured entirely in the Union from materials grown, produced or manufactured in the Union, and from such raw or semi-manufactured materials as may be approved by the Minister.....	*ad valorem*	10 %	10 %
(*f*) Chassis (not including rubber tyres and tubes) imported for bodies to be constructed in the Union from panels, stampings and structural parts, of metal, shaped and drilled, but otherwise in the rough, from metal springs for seats, from metal fittings, from wood shaped but otherwise in the rough, and from other materials not fashioned or cut to shape.....	*ad valorem*	15 %	15 %
(*g*) Spare parts and accessories, but not including electric lamp bulbs, batteries, tyres, and tubes.....	*ad valorem*	20 %	20 %
(*h*) Metal springs, for the manufacture of motor-car seats.....	*ad valorem*	Free	3 %
(*i*) Piston castings in the rough.....	—	Free	Free
130. Motor trucks and motor vans for the conveyance of goods, and steam wagons, and trailers for the same, and motor charabancs and omnibuses—			
(*a*) Assembled or unassembled (except steam wagons).....	*ad valorem*	20 %	20 %
(*b*) Steam wagons.....	*ad valorem*	10 %	10 %
(*c*) Chassis (including tipping gear, but not including rubber tyres and tubes) imported for bodies to be built in the Union.....	*ad valorem*	5 %	5 %
(*d*) Spare parts and accessories, but not including electric lamp bulbs, batteries, tyres, and tubes.....	*ad valorem*	20 %	20 %
131. Packing and lagging for engines, machinery, piping, and buildings.....	*ad valorem*	Free	3 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS V.—METALS, METAL MANUFACTURES, MACHINERY, AND VEHICLES (*continued*).			
132. Perambulators and baby carts	*ad valorem*	10 %	10 %
133. Pickaxes, shovels, and ballast forks	*ad valorem*	Free	3 %
134. Pipes, piping, tubes, and fittings, of metal : for gas, steam, drainage, sewerage, irrigation, water supply, and water pumping ; not including grids, manhole covers and fittings, and surface boxes—			
(*a*) Wrought iron or steel pipes and tubes, not riveted, except downpipes and guttering	per 100 lb.	Free	0 1 0
(*b*) Cast-iron pipes and tubes, except downpipes and guttering	per 100 lb.	Free	0 0 8
(*c*) Lead piping	*ad valorem*	5 %	5 %
(*d*) Downpiping and guttering and fittings therefor, and riveted wrought-iron or steel pipes and tubes	*ad valorem*	15 %	20 %
(*e*) Cocks and taps, and meters and pipe fittings, n.e.e.	*ad valorem*	Free	5 %
(*f*) Pipes and piping, other	*ad valorem*	Free	3 %
(*g*) Cisterns	*ad valorem*	15 %	20 %
(*h*) Water meters for house connexions, not exceeding 1-in. piping	each	Free	0 3 0
135. Presses : wool, cotton, hay, straw, forage, and wine	—	Free	Free
136. Pumps : water and wine ; and water-pumping apparatus, not including pipes or tubes elsewhere provided for	—	Free	Free
137. Quicksilver	—	Free	Free
138. Railway construction or equipment requisites—			
(*a*) Girders, iron bridgework and culvert tops, trollies, and cane trucks	*ad valorem*	17 %	20 %
(*b*) Rails, n.e.e., sleepers (except wooden), fastenings for rails or sleepers, locomotives, tenders, ballast trucks, goods wagons, carriages, wheels and axles, engine water-tanks, turntables, permanent or fixed signals, weighbridges, and railway lamps	*ad valorem*	Free	3 %
139. (*a*) Refrigerating machinery and mechanically cooled refrigerators	—	Free	Free
(*b*) Rings, poultry	—	Free	Free
140. Sewing and knitting machines, not being industrial machinery	*ad valorem*	15 %	15 %
141. Sprayers and sprinklers and other apparatus used for the prevention or destruction of agricultural pests, or of diseases in stock, plants or trees	—	Free	Free
142. Steel balls for tube mills	—	Free	Free
143. Stoves—			
(*a*) Stoves, ranges, coppers, and grates	*ad valorem*	20 %	20 %
(*b*) Electrical cooking and heating appliances (including kettles and irons) : not being machinery elsewhere provided for	*ad valorem*	15 %	20 %
144. Tanks—			
(*a*) Suitable and intended for mining purposes : including vats ; and substructures for the same	*ad valorem*	Free	3 %
(*b*) Other, of metal	*ad valorem*	15 %	20 %
145. Telegraphs and telephones : materials and instruments for use in the construction and working of telegraph and telephone lines	*ad valorem*	Free	3 %
146. Tools, mechanics' : being tools ordinarily used by mechanics or artisans, and not being agricultural implements or machine tools	*ad valorem*	Free	3 %
147. Traction engines and tractors ; stone crushers ; steam and motor road-rollers ; road scarifiers, street sweeping and street spraying machines ; asphalt melting and mixing plant ; tar and pitch boilers	—	Free	Free
148. Tramway construction and equipment requisites—			
(*a*) Girders, iron bridgework and culvert tops, and trollies	*ad valorem*	17 %	20 %
(*b*) Rails, n.e.e., sleepers (except wooden), fastenings for rails or sleepers, cars and gates therefor, wheels and axles, tower wagons, water-tanks, turntables, and railless cars (electric) worked by current from overhead wires	*ad valorem*	Free	3 %
149. (*a*) Typewriters, duplicating and addressing machines ; and numbering and perforating machines, not being for the printing or bookbinding industry	*ad valorem*	15 %	20 %
(*b*) Postage meter machines	*ad valorem*	5 %	5 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS V.—METALS, METAL MANUFACTURES, MACHINERY, AND VEHICLES (*continued*).			
150. Water boring apparatus, not including pipes or tubes elsewhere provided for	—	Free	Free
151. Weighing machines, including scales and balances: not being laboratory instruments, or industrial appliances elsewhere provided for	*ad valorem*	15 %	20 %
152. Wheelbarrows	*ad valorem*	20 %	20 %
153. Wire—			
(*a*) Millinery and brass picture wire, and wire made of precious metal	*ad valorem*	20 %	20 %
(*b*) Other, except electric	*ad valorem*	Free	3 %
	plus	a suspended	duty of
	ad valorem	10 %	15 %
154. Wireless telegraphy and telephony instruments and apparatus used in the working thereof, except batteries	*ad valorem*	Free	3 %
155. Wire-netting—			
(*a*) For fencing, 3-in. mesh	—	Free	Free
(*b*) Woven screen netting for mining purposes	*ad valorem*	Free	3 %
	plus	a suspended	duty of
	ad valorem	17 %	17 %
(*c*) All other	*ad valorem*	15 %	15 %
156. Wire-rope	*ad valorem*	Free	5 %
Class VI.—MINERALS, EARTHENWARE, AND GLASSWARE.			
157. Asbestos-cement manufacturers, namely: plain or corrugated sheets, slates, tiles, ridging, and guttering	*ad valorem*	20 %	25 %
*158. Asphalt and bitumen, in bulk: provided they are of a standard approved by the Minister	—	Free	Free
159. Barytes and pumice; in bulk	*ad valorem*	Free	3 %
160. Bottles and jars of common glass or earthenware, being ordinary trade packages for the transport of goods, and including fruit jars—			
(*a*) Imported full of any article liable to a rated duty	—	Free	Free
(*b*) Empty (including bottles and siphons ordinarily used for aerated waters)	*ad valorem*	Free	5 %
	plus	a suspended	duty of
	ad valorem	20 %	20 %
161. Bricks, except bath	*ad valorem*	20 %	25 %
162. Cement—			
(*a*) For building purposes, including hydraulic lime, and concrete proofers	per 400 lb.	0 1 0	0 1 3
(*b*) Liquid for tube mills	*ad valorem*	Free	3 %
(*c*) Other, including roofing and similar prepared adhesive cements	*ad valorem*	20 %	20 %
163. Coal and patent fuel	per ton of 2,000 lb.	0 3 0	0 3 0
164. Coke	per ton of 2,000 lb.	0 1 0	0 1 6
165. Crucibles, cupels, cupelling furnaces, ingot moulds, retorts, and furnaces for roasting minerals	—	Free	Free
166. Diamonds and other gems, or precious stones, in their rough state	—	Free	Free
167. Earthenware and stoneware, n.e.e., including sanitary pans, urinals, sinks, and lavatory basins	*ad valorem*	20 %	20 %
	plus	a suspended	duty of
	ad valorem	10 %	10 %
168. Emery, in bulk; emery or carborundum cloth, paper, and wheels; sand, glass, and flint paper	—	Free	Free
169. Fireclay, kaolin, china clay, and cornish-stone: in bulk	*ad valorem*	Free	3 %
170. Fuller's earth, not being a toilet preparation: in bulk	*ad valorem*	Free	3 %
171. Glass—			
(*a*) Illuminated windows, imported by or for presentation to any religious body	—	Free	Free
(*b*) Polished plate—			
(i) Exceeding 7 sq. ft. in measurement	per sq. ft.	0 0 6	0 0 7
(ii) Not exceeding 7 sq. ft.	per sq. ft.	0 0 4	0 0 5
(*c*) Sheet (plain, clear)—			
(i) Exceeding 16 oz. per sq. ft.	per 100 sq. ft.	0 6 0	0 7 0
(ii) Not exceeding 16 oz. per sq. ft.	per 100 sq. ft.	0 4 0	0 5 0
(*d*) Bevelled, silvered, and other	*ad valorem*	20 %	20 %
(*e*) Rough, optical	*ad valorem*	5 %	5 %

* For standard, see Government Notice No. 2299 of 1925.

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS VI.—MINERALS, EARTHENWARE, AND GLASSWARE (*continued*).		£ s. d.	£ s. d.
172. Glassware, chinaware, and porcelainware—			
(*a*) For laboratory use	—	Free	Free
(*b*) Other, n.e.e	*ad valorem* plus	20 % a suspended	20 % duty of
	ad valorem	10 %	10 %
173. Graphite or plumbago	*ad valorem*	Free	3 %
174. Grindstones, millstones, and scythe-stones	—	Free	Free
175. Gypsum (sulphate of lime or plaster of paris): in bulk	*ad valorem*	Free	3 %
176. Iron pyrites : in bulk	—	Free	Free
177. Kieselguhr : in bulk	*ad valorem*	Free	3 %
178. Marble—			
(*a*) In the rough or sawn	—	Free	Free
(*b*) Other, including tombstones	*ad valorem*	20 %	20 %
179. Meerschaum : in the rough	—	Free	Free
180. Mica manufactures—			
(*a*) Lamp chimneys and stove fronts	*ad valorem*	20 %	25 %
(*b*) Micanite sheets, other	*ad valorem*	15 %	20 %
181. Pipes, piping, and tubes : of earthenware, for drainage, irrigation, sewerage, water supply or water pumping	*ad valorem*	25 %	25 %
182. Sculpture (including bronzes, but not including tombstones) : being original works of art, or specially made reproductions thereof, modelled separately by an individual artist	—	Free	Free
183. Slates, for roofing, n.e.e	*ad valorem*	3 %	3 %
184. Stone linings and pebbles, for tube mills	—	Free	Free
185. Thermoscope bars and seger cones	—	Free	Free
186. Tiles, n.e.e	*ad valorem*	25 %	25 %
187. Vitreous alumino-silicate compositions, or borax glasses with or without colouring or opacifying material	—	Free	Free
Class VII.—OILS, WAXES, RESIN, PAINTS, AND VARNISHES.			
188. Amber and amberoid, in the rough	—	Free	Free
189. Antifriction and lubricating grease	per lb.	0 0 1	0 0 1
190. Candles	per 100 lb.	0 4 2	0 4 2
191. Copra	—	Free	Free
192. Lead, white			
(*a*) Dry	per 100 lb.	0 6 0	0 7 0
(*b*) Ground in oil—			
(i) In packages containing 50 lb. weight or over	per 100 lb.	0 9 0	0 10 0
(ii) In packages containing less than 50 lb. weight	per 100 lb.	0 10 0	0 11 0
193. Litharge	—	Free	Free
194. Manganese resinate : in bulk	—	Free	Free
195. Motor spirit, namely : benzine, benzoline, naphtha (non-potable), gasoline, petrol ; and petroleum, shale, and coal-tar spirit generally	per imp. gallon	0 0 3	0 0 3
196. Oil, fish : raw, from fish of South African taking	—	Free	Free
197. Oils, essential (natural and synthetic), and perfumed (not being toilet preparations)	*ad valorem*	25 %	25 %
*198. Oils, heavy, for road or pavement construction : in bulk ; provided they are of a standard approved by the Minister	—	Free	Free
199. Oils, lubricating—			
(*a*) In bulk	per imp. gallon	0 0 3	0 0 3
(*b*) Not in bulk	*ad valorem*	15 %	15 %
200. Oils, mineral—			
(*a*) Crude	*ad valorem*	15 %	20 %
(*b*) Illuminating and burning : having a specific gravity of less than 900 at 60° Fahrenheit, and a flash point of not more than 150° Fahrenheit	per imp. gallon	0 0 1	0 0 1
(*c*) Transformer and transil	per imp. gallon	0 0 1	0 0 1
(*d*) Other, n.e.e	*ad valorem*	15 %	20 %
201. Oils, tar and creosote : in bulk	—	Free	Free
202. Oils, vegetable or animal, n.e.e	*ad valorem*	20 %	20 %
203. Paints and colours—			
(*a*) Ready mixed for use ; and artists' colours, enamels, water-paints, distempers, colour-washes, flat oil paints, sheep-marking oils, and petrifying liquids	*ad valorem*	25 %	25 %
(*b*) Dry pigments, n.e.e	*ad valorem*	20 %	20 %
(*c*) Colours, ground in oil, not including white lead ; and patent driers	*ad valorem*	20 %	20 %

* For standard, see Government Notice No. 2299 of 1925.

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS VII.—OILS, WAXES, RESIN, PAINTS, AND VARNISHES (*continued*).		£ s. d.	£ s. d.
204. Polishes: floor, furniture, leather, metal and similar polishes and dressings, including blacking, but not french polish	*ad valorem*	20 %	20 %
205. Resin and turpentine—			
(*a*) Resin (including artificial resin), dry gums, and dry shellac: in bulk	*ad valorem*	5 %	5 %
(*b*) Turpentine (natural and synthetic)	*ad valorem*	20 %	20 %
206. Soap, soap powder and extracts	per 100 lb.	0 4 2	0 4 9
	or		
	ad valorem	20 %	25 %
	whichever	duty shall be	the greater.
207. Tallow, including vegetable tallow, and oleine	—	Free	Free
*208. Tar and pitch, in bulk; provided they are of a standard approved by the Minister	—	Free	Free
209. Varnish, varnish stains, japans, lacquers, french polish, brunswick or berlin black, bitumen varnishes, terebine, liquid driers, liquid size, patent knotting, and gasket shellac	per imp. gallon	0 2 0	0 2 6
210. Waxes and greases—			
(*a*) Beeswax	*ad valorem*	15 %	20 %
(*b*) Other, n.e.e.	*ad valorem*	20 %	20 %
Class VIII.—DRUGS, CHEMICALS, AND FERTILIZERS.			
211. Acetate of lead	*ad valorem*	Free	3 %
212. Acetic and pyroligneous acids and extracts, essences of vinegar, of any strength, not exceeding 6 per cent. of acetic acid—			
(*a*) In bottles or other vessels of a capacity of not more than 1 imperial quart	per imp. gallon	0 1 6	0 1 6
(*b*) In larger vessels	per imp. gallon	0 1 0	0 1 0
and in addition, in either case, for each 1 per cent. by weight of acetic acid in excess of 6 per cent.	per 1 %	0 0 4	0 0 4
213. Acids—			
(*a*) Boric: in bulk	—	Free	Free
(*b*) Oxalic: in bulk	—	Free	Free
(*c*) Other, n.e.e.	*ad valorem*	20 %	20 %
214. (*a*) Alum: in bulk	—	Free	Free
(*b*) Aluminium sulphate	—	Free	Free
	plus	a suspended	duty of
	ad valorem	20 %	20 %
(*c*) Alumina-ferric	*ad valorem*	20 %	20 %
215. Ammonia (solution) and anhydrous ammonia, ammonium carbonate, ammonium chloride (sal-ammoniac), ammonium nitrate, and ammonium perchlorate: in bulk	*ad valorem*	3 %	3 %
216. Animal glands and tissues and their preparations, toxins and antitoxins, lymph, phylacogens, sera, and vaccines: for prophylactic or therapeutic use, including adrenalin	—	Free	Free
217. Barium peroxide: in bulk	*ad valorem*	3 %	3 %
218. Boiler compositions	*ad valorem*	3 %	3 %
219. Borax: in bulk	—	Free	Free
220. Bromine	—	Free	Free
221. Calcium—			
(*a*) Carbonate, oxide, hydroxide, chloride, chlorate, bisulphite, cyanamide, and sulphocyanide: in bulk	*ad valorem*	3 %	3 %
(*b*) Carbide of	per 100 lb.	0 5 0	0 5 0
222. Carbonic acid gas	*ad valorem*	3 %	3 %
223. Disinfectants—			
*(*a*) In bulk, provided they are of a standard approved by the Minister	*ad valorem*	5 %	5 %
	plus	a suspended	duty of
	ad valorem	15 %	15 %
(*b*) All other	*ad valorem*	20 %	20 %
224. Drugs and apothecaryware, n.e.e.	*ad valorem*	20 %	20 %
225. Dyes, not being toilet preparations—			
(*a*) Annatto	—	Free	Free
(*b*) Other, in bulk	*ad valorem*	5 %	5 %
(*c*) Other, not in bulk	*ad valorem*	20 %	20 %
226. Extracts for perfumery, n.e.e.	*ad valorem*	25 %	25 %
227. Fertilizers, in bulk: animal, mineral or vegetable, artificial or natural; and phosphate rock and maltassa	—	Free	Free

* For standard, see Government Notice No. 2299 of 1925.

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS VIII.—DRUGS, CHEMICALS, AND FERTILIZERS (*continued*).			
228. Glycerine—			
(*a*) Crude, in bulk	—	Free	Free
(*b*) Distilled	*ad valorem*	25 %	25 %
229. Magnesium carbonate and magnesium sulphate : in bulk	*ad valorem*	3 %	3 %
230. Manganese dioxide	—	Free	Free
231. Medicinal preparations, not elsewhere enumerated, when prepared by any secret or occult art or recommended to the public under any general name or title as specifics for any diseases or affections whatsoever affecting the human or animal bodies	*ad valorem*	25 %	25 %
232. Naphthalene : in bulk	*ad valorem*	3 %	3 %
233. Nickel sulphate : in bulk	*ad valorem*	Free	3 %
234. Nitrates, except nitrate of ammonium, for manufacturing purposes or for fertilizers : in bulk	—	Free	Free
235. Pastes and powders containing not less than 30 per cent. of water-soluble phosphoric oxide, in the dry substance, for use in clarifying sugar juice	*ad valorem*	20 %	20 %
236. Peptone and agar-agar for making bacterial culture media	—	Free	Free
237. Perchloride of iron : in bulk	*ad valorem*	Free	3 %
238. Perfumery and toilet preparations, n.e.e., including powders, washes, pomatums, cosmetics, pastes, dyes, hair oils, but not including tooth powders, tooth pastes, and tooth washes	*ad valorem*	40 %	40 %
239. Pills, imported in packages not for direct sale to the public	per lb.	1 0 0	1 0 0
240. Platinum : chloride of	—	Free	Free
241. Potassium : carbonate, bicarbonate, silicate, bichromate, chlorate, sulphite, bisulphite, meta-bisulphite, permanganate, cyanide, sulpho-cyanide (thiocyanate), red and yellow prussiate of, and caustic potash : in bulk	*ad valorem*	Free	3 %
242. Radium compounds	—	Free	Free
243. Saltpetre : in bulk	*ad valorem*	Free	3 %
244. Sodium—			
(*a*) Carbonate, including soda crystals (washing soda)	per 100 lb.	0 2 0	0 3 6
(*b*) Bicarbonate, silicate, bichromate, chlorate, permanganate, sulphite, bisulphite, meta-bisulphite, sulphide, sulphocyanide (thio-cyanate), and caustic soda : in bulk	*ad valorem*	Free	3 %
245. Sodium : cyanide of	—	Free	Free
	plus per 100 lb.	a suspended 0 8 4	duty of 0 8 4
246. Substances for the prevention or destruction of agricultural pests : including sheep and cattle dips and dipping powders, and materials suitable only for dip ; substances for the prevention or cure of diseases in plants or trees ; sulphate of copper, arsenic, arsenite of soda, and arsenate of lead	*ad valorem*	Free	Free
	plus *ad valorem*	a suspended 10 %	duty of 10 %
247. Sulphur : in bulk	—	Free	Free
248. Sulphurous anhydride	—	Free	Free
249. Tooth powders, tooth pastes, and tooth washes, containing not more than 3 per cent. proof spirit	*ad valorem*	20 %	25 %
	plus *ad valorem*	a suspended 15 %	duty of 15 %
Class IX.—LEATHER AND RUBBER, AND MANUFACTURES THEREOF.			
250. Bands and belting of all kinds for driving machinery	—	Free	Free
250 (A). Boot and shoe makers' grindery—			
(*a*) Tips, caps, and plates ; loopings, bindings, trimmings, toe puffs, and toe canvas ; wooden heels, wooden clog soles, and cork heel socks ; eyelets and hooks ; pegwood, moulded stiffeners, shanks, bottom fillings, solutions, crayons, and stains and lasts	—	Free	Free
(*b*) Buttons, buckles, and ornaments (not being jewellery) ; crepe rubber and fibrok	*ad valorem*	5 %	5 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS IX.—LEATHER AND RUBBER, AND MANUFACTURES THEREOF (*continued*).			
251. Boots and shoes—			
(*a*) Of any material, and including slippers, sandals and goloshes, and rubber soles, tips and heels, but not including infants' shoes and bootees	*ad valorem*	30 %	30 %
(*b*) Infants' shoes	*ad valorem*	12 %	12 %
252. Harness and saddlery—			
(*a*) New	*ad valorem*	25 %	25 %
(*b*) Second-hand, for sale	*ad valorem*	40 %	40 %
	or		
	per bridle	0 5 0	0 5 0
	per saddle	1 5 0	1 5 0
	per set of harness	2 10 0	2 10 0
	whichever	duty shall be	the greater.
253. Hose—			
(*a*) Rubber : air and water hose, up to 3 in. diameter—			
Plain	per lb.	0 0 1½	0 0 2½
Armoured	per lb.	0 0 1	0 0 1½
(*b*) Rubber : suction hose—			
Plain	per lb.	0 0 2	0 0 3
Armoured	per lb.	0 0 1	0 0 1½
(*c*) Rubber : steam and other rubber hose, n.e.e.	per lb.	0 0 2	0 0 3
(*d*) Leather, canvas, and other hose not containing rubber	*ad valorem*	10 %	15 %
(*e*) Metal fittings for all the above classes of hose	*ad valorem*	10 %	15 %
254. Leather, in the piece—			
(*a*) Patent and enamelled	—	Free	Free
(*b*) Morocco, and sheepskin tanned with sumac and grained to imitate morocco			
(*c*) Pigskin			
(*d*) Valve hide			
255. Leather, in the piece, viz. :—			
(*a*) Black calf, being whole skins, the free-on-board price of which is not less than 1s. 3d. per sq. ft.	—	Free	Free
(*b*) Coloured calf (other than black), being whole skins, the free-on-board price of which is not less than 1s. 6d. per sq. ft.			
(*c*) Black glacé kid, the free-on-board price of which is not less than 1s. 3d. per sq. ft.			
(*d*) Coloured glacé kid (other than black), the free-on-board price of which is not less than 1s. 6d. per sq. ft.			
(*e*) Suede, velour and velvet finish leathers (not including those made from splits, goat or sheep skins, and not including leather known as chamois), the free-on-board price of which is not less than 1s. 6d. per sq. ft.			
(*f*) Lining leather, notwithstanding anything contained in sub-sections (*a*) to (*e*)			
256. Leather, in the piece, not elsewhere enumerated—			
(*a*) Bellies and shoulders, imported separately	*ad valorem*	20 %	20 %
(*b*) Other	per lb.	0 0 6	0 0 6
	or		
	ad valorem	20 %	20 %
	whichever	duty shall be	the greater.
257. Leather manufactures, namely : leggings, bags, trunks, portmanteaux, holdalls, belts, straps, and gun cases, made wholly or chiefly of leather ; not including fancy handbags	*ad valorem*	25 %	25 %
258. Rubber, unmanufactured : including latex, crude, waste, masticated, and reclaimed rubber, and gutta-percha	—	Free	Free
259. Rubber, manufactures of, n.e.e., and not being toys	*ad valorem*	15 %	20 %
260. Rubber pneumatic tyres and tubes—			
(*a*) Tyres, including the weight of the immediate wrapper	per lb.	0 0 10	0 1 0
(*b*) Tubes for motor vehicles other than motor cycles	per lb.	0 0 6	0 0 7½
(*c*) Tubes for motor cycles and cycles	per lb.	0 0 10	0 1 0
261. Rubber tyres, solid : complete or in lengths or in the piece	per lb.	0 0 2	0 0 3

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
Class X—WOOD, CANE, AND WICKER, AND MANUFACTURES THEREOF.			
262. Beehives and wooden sections thereof, and wax foundations for	—	Free	Free
263. Boxes, wooden : empty or in shooks—			
(*a*) For packing fresh or dried fruits and dairy produce, eggs, and condensed milk manufactured in the Union	—	Free	Free
(*b*) For packing other classes of goods and for other purposes	*ad valorem*	20 %	20 %
264. Brushes and brooms, and wooden handles therefor—			
(*a*) Brushes (excluding paint brushes and brushes for toilet use), brooms, whisks, and mops	*ad valorem*	25 %	25 %
(*b*) Other, not being platedware	*ad valorem* plus *ad valorem*	15 % plus a suspended 10 %	15 % duty of 10 %
265. Cane, bamboo, rattans, and osiers—			
(*a*) Unmanufactured	—	Free	Free
(*b*) Manufactures of, not being furniture	*ad valorem*	20 %	20 %
266. Casks, wooden, n.e.e. : empty or in staves	*ad valorem*	20 %	20 %
267. Corkdust, sawdust, husks or other waste substances, intended and suitable for use only as packing material	—	Free	Free
268. Corks—			
(*a*) Corks and wooden bungs	*ad valorem*	3 %	3 %
(*b*) Corkwood, unmanufactured	—	Free	Free
269. Furniture : wooden, wicker, cane, and grass—			
(*a*) Seagrass and rattancore and wicker chairs	each	0 3 9	0 3 9
(*b*) Seagrass and rattancore and wicker settees	each	0 7 6	0 7 6
*(*c*) Bentwood chairs	*ad valorem* plus *ad valorem*	20 % plus a suspended 25 %	20 % duty of 25 %
(*d*) Other, and parts thereof	each	0 1 0	0 1 0
270. Handles, wooden, for picks, shovels, and agricultural implements	*ad valorem*	5 %	5 %
271. Hubs, rims, spokes, felloes, shafts, tentbows, and poles : cut or fashioned, not finished—			
(*a*) For wagons and carts commonly used for the conveyance of goods	*ad valorem*	20 %	20 %
(*b*) Other	*ad valorem* plus *ad valorem*	5 % plus a suspended 15 %	5 % duty of 15 %
272. Joinery : wooden frameworks of houses, including window frames, sills and sashes, doors and lintels, staircases, casements, and mouldings	*ad valorem*	25 %	25 %
273. Plywood	per cub. ft. or *ad valorem*	0 4 0 or 25 % whichever duty shall be	0 4 0 or 25 % the greater.
274. Saddle trees	—	Free	Free
275. Shingles	*ad valorem*	20 %	20 %
276. Sleepers, railway or tramway, wooden	*ad valorem*	Free	3 %
277. Staves, wooden, in the rough	—	Free	Free
278. Vats, wooden, for the manufacture of wines and hogsheads of a capacity of 65 gallons or more, for the storage of wines or spirits	—	Free	Free
279. Wood—			
(*a*) Unmanufactured	*ad valorem*	Free	3 %
(*b*) Ceiling and flooring boards : planed, tongued, and grooved	*ad valorem* plus *ad valorem*	3 % plus a suspended 17 %	3 % duty of 17 %
280. Wood meal, wood pulp, and wood wool	—	Free	Free
Class XI.—BOOKS, PAPER, AND STATIONERY.			
281. Atlases, charts, globes, and maps	—	Free	Free
282. Bags, paper—			
(*a*) Printed, including cellophane bags	*ad valorem*	30 %	30 %
(*b*) Not printed	per lb.	0 0 1½	0 0 1½
283. Bank notes and other paper currency and postage stamps (used or unused)	—	Free	Free
284 Books, printed, and printed music, newspapers and periodicals, n.e.e., and which are not foreign unauthorized prints of any British or South African copyright work the importation of which is prohibited, or which are not advertising matter elsewhere enumerated	—	Free	Free

*Suspended duty brought into operation by Proclamation No. 39 of 1926.

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS XI.—BOOKS, PAPER, AND STATIONERY (*continued*).			
285. Cardboard boxes and cartons—			
(*a*) Printed	*ad valorem*	30 %	30 %
(*b*) Not printed	*ad valorem*	20 %	20 %
(*c*) Wax cartons (jars), for food products	—	Free	Free
286. Cardboard discs for milk bottles, plain or printed	*ad valorem*	20 %	20 %
287. Cardboard, linenboard, leatherboard, strawboard, and millboard, but not including pulpboard for building purposes	—	Free	Free
288. Cards, playing	per pack and in addition	0 0 9	0 0 9
	ad valorem	20 %	20 %
289. Diagrams, drawings, and plans	—	Free	Free
290. Engravings and photographs (not including enlargements or reproductions); not being labels or advertisements elsewhere enumerated	—	Free	Free
291. Inks and ink powders—			
(*a*) Printing, ruling, and lithographic; roller composition and ink driers and ink reducers	—	Free	Free
(*b*) Other	*ad valorem*	30 %	30 %
292. Lithographs of religious subjects, including texts and mottoes, imported solely for the purpose of religious instruction	—	Free	Free
293. Newspapers or supplement editions or parts thereof, intended to be completed and published in the Union—			
(*a*) As religious publications	—	Free	Free
(*b*) Other	*ad valorem* or per lb. whichever	40 % or 0 0 9 duty shall be	40 % or 0 0 9 the greater.
294. Paintings, etchings, pictures, including reproductions and enlargements, and picture books, not being advertisements elsewhere enumerated, and not forming nor intended to form part of any imported printed, lithographed or embossed matter otherwise provided for	—	Free	Free
295. Paper—			
(*a*) Blotting, carbon, gummed, oiled, waxed and wall, and lined bottle tissue and cellophane	*ad valorem*	15 %	15 %
(*b*) Graphitized, lithographic transfer, plain tissue, and greaseproof (plain or corrugated)	—	Free	Free
(*c*) News print, in reels or in the flat	*ad valorem*	Free	5 %
(*d*) Plain or composite, n.e.e.—			
(i) In the original mill wrappers, flat or folded, not less than 16 in. by 15 in.	—	Free	Free
(ii) In reels, including paper in reels used for the monotype typesetting machine	—	Free	Free
(*e*) Sanitary, sensitized, and tracing	*ad valorem*	20 %	20 %
(*f*) wrapping (including browns, casings, sealings, nature or ochre browns, sulphites, krafts and bag papers); in original mill wrappers, or in sheets or in rolls, when the weight of the paper at a size of 29 in. by 45 in. or its equivalent is not less than 30 lb. per ream of 480 sheets, but not including waxed, oiled, greaseproof, vegetable and imitation parchment, and printed papers, cartridge papers, and tinfoil and similar metallic papers	per lb. plus per lb.	0 0 0⅝ a suspended duty of 0 0 0½	0 0 0⅝ duty of 0 0 0½
296. Printed, ruled, lithographed, and embossed matter (not being metal and not including embossed paper serviettes, d'oyleys, and paper mats)—			
(*a*) Picture post cards; Christmas, birthday, pictorial, New Year, and other cards; calendars, calendar pads, calendar mounts, and almanacs; box-coverings and pictures intended to form part of imported printed, lithographed or embossed matter	*ad valorem*	25 %	35 %
(*b*) Directories, guide books, year books and handbooks, relating to South Africa; South African Christmas annuals, holiday and special numbers or editions of South African newspapers, magazines or periodicals or parts thereof; supplements to South African publications	*ad valorem* or per lb. whichever	30 % or 0 0 4 duty shall be	40 % or 0 0 6 the greater.

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS XI.—BOOKS, PAPER, AND STATIONERY (*continued*).			
296. Printed, ruled, etc. (*continued*)—			
(*c*) Account books, exercise books, and copy books; stationery and forms in books, pads or loose; diaries, n.e.e.; delivery, manifold, and index books; bank cheques, drafts, promissory notes, bills of exchange and similar forms; receipt forms; reminder slips; scrip, share certificates, and company reports; membership certificates for lodges, unions and like institutions; letter headings and form letters; invoices and account forms	*ad valorem* or per lb. whichever	30 % or 0 0 4 duty shall be	40 % or 0 0 6 the greater.
(*d*) Pocket diaries, loose leaf and other, and refills therefor; letter-copying books; pin tickets	*ad valorem*	25 %	25 %
(*e*) Envelopes (except what is technically known as "side die")	*ad valorem*	30 %	30 %
(*f*) Labels, tickets, n.e.e., and address tags, flat or in rolls	*ad valorem* or per lb. whichever	30 % or 0 0 4 duty shall be	40 % or 0 0 6 the greater.
(*g*) (i) Catalogues and price lists of Union firms and firms holding stocks in South Africa, printed and posted abroad to individuals in South Africa	*ad valorem* or per lb. whichever	30 % or 0 0 4 duty shall be	40 % or 0 0 6 the greater.
(ii) Catalogues and price lists of firms or persons having no established place of business in the Union and no permanent agent holding stocks in South Africa	—	Free	Free
(*h*) (i) All advertising samples (not being any article liable to a rated duty and not being an article of food liable to a duty other than a rated duty) issued gratis or intended for distribution gratis, as advertising matter	*ad valorem* or per lb. whichever	30 % or 0 0 4 duty shall be	40 % or 0 0 6 the greater.
(ii) Advertising samples of an article of food liable to a duty other than a rated duty issued gratis or intended for distrubution gratis, as advertising matter	—	Free	Free
(iii) All other advertising matter, including advertising invoice forms and similar stationery usually issued gratis or at nominal prices	*ad valorem* or per lb. whichever	30 % or 0 0 4 duty shall be	40 % or 0 0 6 the greater.
(*i*) Stencil sheets, for duplicating	*ad valorem*	10 %	10 %
(*j*) Other, n.e.e.	*ad valorem*	20 %	20 %
297. Stationery, n.e.e.—			
(*a*) Loose-leaf covers and binders; letter or document files in book or folder form	*ad valorem*	30 %	40 %
(*b*) Other	*ad valorem*	20 %	20 %
Class XII.—JEWELLERY, TIMEPIECES, FANCY GOODS, AND MUSICAL INSTRUMENTS.			
298. Band instruments and stands, the *bona fide* property of any military, naval or police corps, and not the property of individuals	—	Free	Free
299. Beads	per lb. or *ad valorem* whichever	0 0 6 or 25 % duty shall be	0 0 6 or 25 % the greater.
300. Clocks and watches; and cases and the set-up mechanism or movements therefor	*ad valorem*	25 %	25 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
CLASS XII.—JEWELLERY, TIMEPIECES, FANCY GOODS, AND MUSICAL INSTRUMENTS (*continued*).		£ s. d.	£ s. d.
301. Cups, medals and other trophies, not being for the purpose of advertisement : imported for presentation—			
(*a*) As prizes at public examinations, exhibitions, shows, or for public competition for skill and sport	—	Free	Free
(*b*) As prizes for rifle shooting by military, naval or police forces	—	Free	Free
(*c*) For bravery, good conduct, humanity ; for excellence in art, industry, invention, manufactures, learning, science ; or for honourable or meritorious public services	—	Free	Free
Provided that all such articles shall on importation or delivery free from the Customs bear engraved or otherwise indelibly marked on them the occasion or purpose for which they are presented.			
302. Gold and silver plate, and gold and silver-plated ware, not being church plate	*ad valorem*	30 %	30 %
303. Gramophones, phonographs, and records therefor	*ad valorem*	20 %	25 %
304. Jewellery, including imitation jewellery, and rolled gold, enamel or gilt-jewellery ; precious stones and pearls and imitations thereof, cut or polished, and whether mounted or unmounted ; completed portions or parts of any article of jewellery, imitation or otherwise ; ornamental hat pins, ornamental hair pins, and ornamental buckles ; bangles, necklaces, girdles, muff chains, clasps, and similar articles of adornment	*ad valorem*	30 %	30 %
305. Musical instruments, n.e.e.	*ad valorem*	20 %	20 %
306. Organs and blowers therefor, harmoniums, band instruments, and plate : imported by or for presentation to any religious body	—	Free	Free
307. Sporting and athletic goods, that is, articles, n.e.e., used for outdoor or indoor games ; toys ; and fishing appliances (not being for industrial purposes)	*ad valorem*	20 %	20 %
308. Tobacconists' wares, including pipes, pouches, pipe covers, pipe stands, pipe cases, smokers' cabinets, cigar and cigarette holders, match boxes, tobacco jars, cigar and cigarette cases, ash trays, cigar and cigarette lighters	*ad valorem*	30 %	30 %
Class XIII.—MISCELLANEOUS.			
309. Ambulance materials, imported by recognized associations, corps or hospitals, lawfully established for instruction or drill in first aid to the wounded ; including uniforms and badges for the St. John Ambulance Brigade or Association	—	Free	Free
310. Ammunition and explosives—			
(*a*) Blasting compounds, including all kinds of explosives suitable and intended for blasting, and not suitable for use in firearms (except detonators) ; and collodion cotton not intended for manufacturing purposes	per lb.	0 0 2	0 0 2
(*b*) Cartridges	*ad valorem*	15 %	15 %
And in addition on the gunpowder contained therein	per lb.	0 0 6	0 0 6
(*c*) Detonators, percussion caps, and empty cartridge cases	*ad valorem*	20 %	20 %
(*d*) Fireworks of all descriptions	*ad valorem*	25 %	25 %
(*e*) Fuse, blasting—			
(*a*) Electric	*ad valorem*	20 %	20 %
(*b*) Other	per lb.	0 0 1½	0 0 1½
(*f*) Gunpowder and other explosives suitable for use in firearms	per lb. and in addition	0 0 6	0 0 6
	ad valorem	15 %	15 %
(*g*) Shot, bullets, and slugs	*ad valorem*	20 %	20 %
311. Appointments and uniforms for military or naval forces	—	Free	Free
312. Articles imported or taken out of bond for the use of the Governor-General	—	Free	Free
313. Assay mabor and assayer's bone ash	—	Free	Free
314. Astronomical instruments and equipment therefor, imported by institutions or societies engaged in astronomical work	—	Free	Free
315. Bioscopes, cinematographs, and magic-lanterns ; and slides for the same, but not including films	*ad valorem*	25 %	25 %

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS XIII.—MISCELLANEOUS (*continued*).			
316. Church decorations, altars, bells, fonts, lecterns, pulpits, and vestments : imported by or for presentation to any religious body.....	—	Free	Free
317. (*a*) Consular uniforms and appointments ; and articles (not being private wearing apparel, food or drink or tobacco in any form, but including publications and advertising matter relating to fairs and exhibitions) for the official or private use of Consuls or Trade Commissioners who are not engaged in or connected with any other business, profession or occupation in the Union.....	—	Free	Free
(*b*) Consular stationery, uniforms and appointments, and publications and advertising matter relating to fairs and exhibitions, for the official use of Consuls or Trade Commissioners other than those falling under paragraph (*a*) above.....	—	Free	Free
318. Felt, rubberoid, and similar substances—			
(*a*) In rolls, for building purposes and for wrapping water pipes.....	—	Free	Free
(*b*) Not in rolls, for building purposes.....	*ad valorem*	20 %	20 %
319. Films, cinematograph—			
(*a*) Blank films, known as raw films or stock...	—	Free	Free
(*b*) Of a scientific or educational nature, for exhibition solely to scientific or technical societies or in educational institutions, or certified by the Secretary for Public Health to be for use in the interests of public health	—	Free	Free
(*c*) Other.....	per 100 ft. or *ad valorem* whichever	0 2 6 or 30 % duty shall be	0 2 6 or 30 % the greater.
320. Ice.....	—	Free	Free
321. Life belts and buoys, and other life-saving (including mine-rescue) apparatus.....	—	Free	Free
322. Matches—			
(*a*) Wooden, including match splints—			
In boxes or packages of not more than 100 matches, per gross of boxes or packages.....	—	0 1 9	0 2 6
In boxes containing more than 100 but not more than 200 matches, per gross of boxes or packages.....	—	0 3 6	0 5 0
And for every 100 additional matches, in boxes or packages, per gross of 100 matches.....	—	0 1 9	0 2 6
(*b*) Fusees, vestas or wax matches, or other patent lights used as such—			
In boxes or packages containing not more than 50, per gross of boxes or packages	—	0 2 6	0 2 6
In boxes or packages of more than 50 but not more than 100, per gross of boxes or packages.....	—	0 5 0	0 5 0
And for every 50 additional in boxes or packages, per gross of 50 matches....	—	0 2 6	0 2 6
323. Models, not being toys and not being for advertising purposes.....	—	Free	Free
324. Photographic apparatus and material, n.e.e., and not including process cameras imported by lithographers.....	*ad valorem*	20 %	20 %
325. Public stores, imported or taken out of bond by, and *bona fide* for the sole and exclusive use of the Government of His Britannic Majesty and of any Government belonging to the Union : provided that a certificate be delivered to the Customs authorities given under the hand of an officer approved by the Commissioner of Customs, setting forth that any duty levied on such public stores would be borne directly by the Government; and provided, further, that no portion of such stores used or unused shall be sold or otherwise disposed of so as to come into the possession of or into consumption by any person not legally entitled to import the same free of duty, without the consent of the Commissioner of Customs and the payment of the duties to him by the officer so selling or disposing of such public stores at the rate leviable at the date of sale.....	—	Free	Free

TARIFF OF CUSTOMS DUTIES (*continued*).

Class and Description.		Minimum Duty.	Maximum Duty.
		£ s. d.	£ s. d.
CLASS XIII.—MISCELLANEOUS (*continued*).			
326. School and hospital furniture and requisites, including materials and requisites required for the construction and equipment of buildings erected by a university, college, school or public hospital, and requisites for the South African Institute for Medical Research, being articles certified by any official appointed for that purpose in the Union; but not including athletic or sporting goods; provided the certificate is endorsed by the Board of Trade and Industries to the effect that the goods are not ordinarily made in the Union	—	Free	Free
327. Scientific apparatus and instruments for scientific observation or record or for the control of manufacturing operations	—	Free	Free
328. Specimens illustrative of natural history and exhibits and antiquities: for public museums or other institutions to which the public have free access, or for scientific purposes	—	Free	Free
329. Surgical and dental instruments and appliances, and instruments and appliances used by registered medical practitioners or by veterinary surgeons in the diagnosis or treatment of diseases or affections of the human or animal body	—	Free	Free
Vessels —			
330. Boats, launches, and yachts, n.e.e.	*ad valorem*	20 %	20 %
331. Hulks	*ad valorem*	20 %	20 %
332. Life-boats	—	Free	Free
333. Tugs, ship's tenders, dredgers, and lighters: provided that when condemned or landed to be broken up duty shall be paid at the Customs on the hull and all fittings, according to the tariff that may be in force	—	Free	Free
334. Yachts, the property of tourists visiting South Africa: under such conditions as the Minister may prescribe	—	Free	Free
Class XIV.—GENERAL.			
335. All goods, wares, and merchandise, not included under any other heading in the tariff, and not provided for in Class XV	*ad valorem*	20 %	20 %

Class XV.—MATERIALS FOR INDUSTRIAL PURPOSES.

The articles and substances enumerated in this class will, notwithstanding anything to the contrary contained in Classes I to XIV, be admitted duty free on importation under such conditions and regulations as the Minister may prescribe, if intended for use only in the manufacturing industry mentioned in each instance.

336. *Bacon and meat industries:* Parchment containers for lard; hog casings (sausage skins).

337. *Bag-making industry:*—
(1) Cotton piece-goods and twine in cut lengths for the manufacture of tobacco and other bags as containers for South African produce and manufactures.
(2) Wrapping paper and gummed paper for use in the manufacture of paper bags.

338. *Boot and shoe making industry:* Canvas, duck, combined canvas or duck, tarred felt, poplins, fabric linings, and backing cloth; cotton, linen, and silk threads; hand brushes; blacking, polishes, dressings, cleaners, and waxes; marking and embossing inks, and embossing paper.

339. *Broom and brush making industry:* Fibre and grass cleaned or dyed, but not further prepared or manufactured.

340. *Canvas goods manufacturing industry:* Canvas in the piece, weighing less than 8 oz. per yard of 28½ in. in width; tent rings, brass eyelets, hooks and eyes, webbing and thread.

341. *Cattle foods:* Concentrates for cattle food manufactured in the Union.

342. *Confectionery and biscuit manufacturing industries:* Confectioners' requisites, imported in bulk, namely, golden syrup, cocoa mass paste or slab, desiccated unsweetened coconut, block chocolate, unsweetened, gelatine (animal or vegetable), raw gums, deodorized or hydrogenated refined vegetable fats, and cocoa butter.

343. *Dips, disinfectant and insecticide manufacturing industry:* Ferrous and zinc sulphates; linseed, castor and whale oil, fatty acids; turpentine, cresylic acid, green oil, vaporizing oil, verpine, red oil, pyrethrum powder, iodine and potassium iodide; methyl salicyl; carbolic and naphthalic acid, nitro benzol, crude pine oil and crude terebine oil.

344. *Electric batteries manufacturing industry:* Terminals, plugs and other metal parts, insulators, glass tubes, dolls, composition pitch, ceresin wax and exciter salts.

345. *Explosives manufacturing industry:* Magnesium sulphate and magnesium carbonate in bulk; paraffin wax, stearine wax and stearine grease, collodion cotton and amatol; distilled glycerine in bulk.

CLASS XV.—MATERIALS FOR INDUSTRIAL PURPOSES (*continued*).

346. *Furniture-making industry :* Hinges, locks and keys, escutcheons, handles, castors, webbing, stubs and binding, gimps, cords and similar edgings, metal parts of blind rollers, twisted seagrass, and haircloth.

347. *Hat and cap manufacturing industry :* Raw felt, straw plaits, inside bands, linings of any material cut to shape, black padding and cap peaks cut to shape.

348. *Leather work, including the manufacture of bags, trunks, leggings, belts, straps, harness, saddlery :* Hand tools for bridle-makers, saddlers, harnessmakers and bagmakers, solution, fibreboard, hempite and similar compositions, metal and other frames, wooden hoops, locks, clips, studs, handles, swivels, caps, corners, hat-box cones, eyelets and hooks, springs, buckles, rings and other metal fittings, webs and webbing, seat linen, painted canvas, painted hessian, willesden green cloth and stiffening paper, saddle serge, saddle felt, linen thread, linings for suit cases, bags, trunks and other bagware, saddle nails, bridle rosettes of metal.

349. *Metallization processes and micanite manufacture :—*
   (*a*) Wire of all kinds, and metals in powder form for metallization processes.
   (*b*) Insulating varnish for micanite manufacture.

350. *Mining industry :—*
   (1) Eucalyptus, pine and other oils for use in connexion with the extraction of gold and other minerals by the flotation process.
   (2) Sodium sulphide for use in the concentration of ore by the flotation process.
   (3) Corduroy for use as battery cloth.

351. *Motor-fuel manufacturing industry :* Substances to be used as denaturants ; motor spirit for mixing with locally produced alcohol for the purpose of producing power alcohol.

352. *Oil-expressing industry :* Oil seeds and nuts, edible and non-edible, in bulk.

353. *Paints, varnish, polish, and putty manufacturing industries :* Materials in bulk, for the manufacture of paints, varnish, and polish and putty for resale, namely : leads, white and red, dry or ground in oil, and lithopone, linseed oil, boiled or raw, linsidol and similar substitutes for linseed oil, turpentine (natural or synthetic), acetic acid, amber oil, amyl acetate, waxes for polish-making, and sulphate of iron for colouring distempers.

354. *Papermaking industry :* Resin size, in bulk.

355. *Pipe (tobacco) making industry :* Stems (other than wooden), bone screws, clay and asbestos pipe cups, disc rasps and files, felt bobs and mops for polishing, erinoid rods, meerschaum blocks, mouthpieces of vulcanite, amber, amberoid, erinoid, celluloid, bakelite, and horn, clay linings and cups, shellac, block vulcanite, hinge tops.

356. *Printing, lithographic, bookbinding, ink manufacturing and cardboard box-making industries :—*
   (1) Stamping colours and printers' bronze powder ; lithographic offset powder ; gold, silver, bronze, and aluminium leaf.
   (2) Process block makers' requisites, namely : nitrate of silver, collodion, iodizer, fish glue, dragons blood, glacial acetic acid, biphosphate of ammonia, glass screens, plate and photographic paper ; varnish, including litho varnish, glass marbles, pumice blocks, snakestone blocks, stereo blotting-paper, stereo backing and graining grit.
   (3) Canvas in white and colours, American cloth, webbing, parchment, leather, imitation leather, corduroy, skins, vellum, binders' paper, marble paper, thread, tape, and pulpboard.
   (4) Wallpaper or other fancy paper in rolls, or in the flat not less than 16 in. by 15 in., and gummed tape, lace paper and lace strips, greaseproof or otherwise, for box making ; and metal eyelets, parts and edging, and corrugated lined board.
   (5) Gum for envelopes, and gummed paper.
   (6) Sulphite papers, for printing purposes only.
   (7) Cloth, for the manufacture of heliographic paper.
   (8) Gallic acid, tannic acid, sulphate of iron, for the manufacture of inks.

357. *Rope, twine, and cordage manufacturing industry :* Batching oil, and ingredients for the same ; and lubricants used in the manufacture of steel wire ropes, in bulk.

358. *Rubber manufacturing industry :* For the manufacture of rubber and rubber goods :—
   (*a*) Pigments, filling agents and vulcanizing accelerators, viz., zinc oxide (zinc white), zinc sulphide, zinc sulphate, antimony sulphide (yellow and red), alumina, magnesium carbonate, calcined magnesia, lithopone (mixture of zinc sulphide and barium sulphate or of zinc white and barium sulphate), vegetable black, carbon black, prussian blue, white and red lead, ebonite powder and emarex (natural pitch) ; in bulk.
   (*b*) Rubber substitutes, viz., vulcanized vegetable oils ; in bulk.
   (*c*) Rubber compounding oils, viz., aniline oil, rosin oil, and vaseline ; in bulk.
   (*d*) Rubber solvents, viz., benzine (benzol), coal-tar naphtha, westrosol, westron, carbon disulphide ; in bulk.
   (*e*) Vulcanizing agents, viz., sulphur chloride, in jars of not less than 1 imperial gallon.
   (*f*) Canvas in the piece and mercury sheeting.
   (*g*) Yarns, ammonia, and linseed oil (boiled).

359. *Shirt, collar and pyjama suit manufacturing industry :* Piece-goods of cotton or wool or mixtures thereof, buttons, woven labels and tabs, and pyjama girdles : provided they are imported direct by a manufacturer, who must be licensed under the Factory Act and employ not less than ten operatives.

360. *Soap, candle, and grease making industry :* Soya bean oil, citronella oil, mirbane oil, castor oil, raw linseed oil, and crude mineral oil ; paraffin wax, stearine wax and stearine grease.

361. *Steelware manufacturing industry :* Eyelets, rims and rings for pressed steelware ; rough steel tubing for petrol and other fillers.

362. *Textile industry :—*
   (1) Yarns other than woollen, for use in the manufacture of suitings, coatings and other dress material, and of blankets and sheetings, and for machine-knitted goods.
   (2) Oils for lubricating wool in the process of spinning and weaving by manufacturers of woven goods.
   (3) Acetic and formic acid.
   (4) Woven labels and tabs.

363. *Tanning industry :* Substances for preparing or bating hides and skins, and for tanning and finishing leather ; including formic acid, acetic acid, hyposulphite of soda, and tanners' white soap.

364. *Tin printing industry :* Stoving varnishes and lacquers, in bulk.

365. *Waterproof clothing manufactures :* Rubber-proofed material ; in the piece, made of cotton, hair, silk or wool, or mixtures thereof, and coal-tar naphtha, woven labels and tabs.

CLASS XV.—MATERIALS FOR INDUSTRIAL PURPOSES (*continued*).

366. *Whaling industry* :—
(1) Gunpowder and time fuses.
(2) Harpoons, whaling guns and parts thereof, manilla and hemp whale lines over 3½ in. in circumference.
(3) Drums for the export of whale oil.

367. *Windmill manufacturing industry* : Brass tubes (rough drawn).

368. *Wine, brandy and spirit industry* :—
(1) Matured second-hand wine and brandy casks of a capacity of not more than 65 liquid gallons, for maturing spirits distilled under section *six* of Act No. 5 of 1924.
(2) Matured wine and brandy casks for use as containers of South African wine for export.
(3) Steel drums for use as containers of South African spirits for export.

369. Wire for the manufacture of wire-netting.

370. *Woolwashing* : Soap and like substances.

371. *Materials for general industrial purposes* :—
(1) Colour preparations, spiritous or non-spiritous, and glazes; used in the manufacture or preparation of articles for sale.
(2) Oils, in bulk: palm, palm kernel, cocoanut, cotton seed, mafurra, resin, whale and sea elephant.
(3) Oxides, in bulk, namely: cobalt, copper, iron, tin, and zinc; and pigments (dry).
(4) Solvent naphtha, sealtite and similar fluxes, rubber rings and string solder, for use by manufacturers in the sealing of containers.
(5) Molasses : in bulk.
(6) Resin, including artificial resin, dry gums, dry shellac : in bulk.
(7) Paraffin wax : in bulk.

372. *Fish canning industry* : Wood linings for tins, cut to shape.

373. *Iron and steel and engineering industries* : Casehardening powders and compounds; sand reviving compo; plugs used as gauges for grooving and cutting rolls for the rolling of iron and steel; bricks for blast-furnace linings.

374. *Plywood manufacturing industry* : Gummed veneer tape.

375. *Road-making preparations* : Crude mineral oil for the manufacture of preparations for road-making.

GENERAL NOTE.

The headings of the respective Classes in this Schedule are used only for convenience of classification, and shall not in any way affect the interpretation of the Tariff.

"N.e.e." means "not elsewhere enumerated."

"Proof" shall mean the strength of proof as ascertained by Sikes' hydrometer.

"Proof spirits" shall mean spirits which, at a temperature of 51° Fahrenheit, weigh twelve-thirteenths part of an equal measure of distilled water.

The term "in bulk" when it appears in the Tariff means—
(*a*) goods loose without packing, or loose in barrels, casks or any other single outside package : or
(*b*) that the net contents of any immediate container of goods weigh not less than 10 lb. or measure not less than 1 imperial gallon.

"Piece-goods" shall not include material which is defined by selvedge or by pattern for cutting up into separate articles.

24 reputed half-pints, 12 reputed pints, 6 reputed quarts, and 4 reputed imperial quarts to be deemed to be not less than 1 gallon.

Tins, jars or other receptacles of reputed weight to be deemed to be not less than such weight.

Reputed 12-oz., 14-oz. and 16-oz. packets of candles to be deemed to be of those weights respectively.

Cement in packages of not less than 350 lb. and not more than 400 lb. to be deemed 400 lb.

Packages of flour or wheaten meal containing not less than 90 lb. and not more than 100 lb. to be deemed to be 100 lb., and packages containing more than 180 lb. and not more than 200 lb. to be deemed to be 200 lb.

Oils and motor spirits in ordinary reputed two 5 American gallon or ten 1 American gallon tins to be deemed to be not less than 8½ imperial gallons, and two 4 reputed gallon tins to be deemed to be not less than 8 imperial gallons.

Goods mixed or made up of more than one article liable to duty under any of the Classes of this Schedule and not chemically forming another distinct substances, are chargeable with the full duty payable on the article charged with the highest rate of duty and as if such article formed the whole composition.

A complete article imported in an unassembled condition is liable to the rate of duty which would be applicable to that article if imported in a fully set-up condition, notwithstanding that the constituent parts are packed separately and are provided for elsewhere in the Tariff.

SECOND SCHEDULE.

PREFERENTIAL REBATES OF DUTY.

PART I.

To Products and Manufactures of the United Kingdom.

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
		£ s. d.	£ s. d.
	Foodstuffs—		
19 (*e*)	Fish : tinned (not specially provided for).....	0 0 1½ per lb.	0 0 0½ per lb.
	Textiles—		
70	Hosiery, namely : socks and stockings	15 % *ad valorem*	5 % *ad valorem*
71	Laces, lace curtaining and flouncing, and embroidery : in the piece or in the form of insertions or medallions	20 % *ad valorem*	5 % *ad valorem*

PREFERENTIAL REBATES OF DUTY.—PART I (*continued*).

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
		£ s. d.	£ s. d.
	Textiles (*continued*)—		
76 (*a*) (i)	*Piece-goods*, not being blanketing or kaffir sheeting— Cotton (that is, piece-goods containing 50 per cent. or more of cotton), the free-on-board price of which per yard does not exceed 1s. 3d.....	12½ % *ad valorem*	5 % *ad valorem*
	NOTE.—In the case of piece-goods exceeding 30 in. in width, "yard" shall mean 36 in. by 30 in. in width, and the price shall be calculated proportionately to the width.		
	Metals and machinery—		
Ex 86	Motor cycles and side-cars, including spare parts and accessories, but not including electric lamp bulbs, tyres and tubes, when imported separately.....	20 % *ad valorem*	5 % *ad valorem*
89 (*a*)	Buckets, skips, trucks, and tubs, wheeled or otherwise, for hauling on rails or wires; and metal shafts sets.....	5 % *ad valorem*	The whole duty.
(*b*)	Rails not exceeding 30 lb. per running foot.....	5 % *ad valorem*	The whole duty.
99	Cutlery, not plated.....	20 % *ad valorem*	5 % *ad valorem*
102	Enamelware and hollowware—		
(*a*)	Enamelled lamp shades and reflectors.....	5 % *ad valorem* plus a suspended duty of 20 % *ad valorem*	5 % *ad valorem*
(*b*)	Enamelware, n.e.e.....	20 % *ad valorem* plus a suspended duty of 10 % *ad valorem*	5 % *ad valorem*
(*c*)	Hollowware, n.e.e.....	20 % *ad valorem*	5 % *ad valorem*
115	Lamp bulbs: electric—		
(*a*)	Projector type.....	5 %	The whole duty.
(*b*)	Radiator type.....	20 %	5 %
(*c*)	Motor and motor-cycle head-lights.....	0 10 0 per 100	The whole duty.
(*d*)	Motor and motor-cycle side-, tail, and dash-lights.....	0 5 0 per 100	The whole duty.
(*e*)	Flashlights.....	0 2 6 per 100	The whole duty.
(*f*)	Carbon filament.....	0 5 0 per 100	The whole duty.
(*g*)	Vacuum type, n.e.e.— Not exceeding 60 watts....	0 5 0 per 100	The whole duty.
	Exceeding 60 watts.....	0 10 0 per 100	The whole duty.
(*h*)	Gasfilled type, n.e.e.— Not exceeding 100 watts..	0 10 0 per 100	The whole duty.
	Exceeding 100 watts.....	1 0 0 per 100	The whole duty.
116	Lamps and lampware—		
(*e*)	Lamp shades and reflectors, of glass or metal, for gas and electric lighting, n.e.e.....	5 % *ad valorem*	The whole duty.
118	Machinery, apparatus, appliances, and implements (not specially provided for, and not including material, domestic machines or vehicles)—		
(*c*)	For mining purposes.....	3 % *ad valorem*	The whole duty.
(*d*)	Rock drill spares, and metal liners for tube mills.....	20 % *ad valorem*	3 % *ad valorem*
(*e*)	Plates and frames for sugar filter-presses.....	20 % *ad valorem*	3 % *ad valorem*
(*f*)	For manufacturing and industrial purposes [other than agricultural and than those falling under (*d*) and (*e*) above], including machinery for power laundries, but not fixed plant and machinery for factory installation, and structural steelwork for staging and platforms.....	3 % *ad valorem*	The whole duty.

PREFERENTIAL REBATES OF DUTY.—PART I (*continued*).

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
	Metals and machinery (*continued*)—	£ s. d.	£ s. d.
119 (*a*)	Machinery, apparatus, appliances, implements, and electrical material used in connexion therewith for the generation, storage, transmission, distribution of, and lighting by, gas or electric power, and machinery for the conversion and transformation of electric power, but not including acetylene lamps, hand and portable lamps, lamp shades and reflectors, batteries and bulbs elsewhere provided for, electric fans, and parts or accessories of motor vehicles or cycles.....	5 % *ad valorem*	The whole duty.
(*b*)	Batteries, electrical : wet or dry, primary or secondary, including accumulators, except those of which each cell or unit is of a capacity greater than 150 amperes	15 % *ad valorem* plus a suspended duty of 15 % *ad valorem*	5 % *ad valorem*
122	Iron and steel—		
(*a*)	In blocks, ingots, pigs, billets, slabs, blooms, and like crude manufactures; and scrap.....	3 % *ad valorem*	The whole duty.
(*b*)	Plates and sheets : plain, corrugated or galvanized, including tinplate, but not including lacquered, enamelled, varnished, printed, lithographed, or embossed.....		
(*c*)	Angle, bar, channel, hoop, rod, H, T, and similar iron or steel, not perforated or put together or worked up in any way, and not specially provided for, and baling clips....		
(*d*)	Drill steel.....		
(*e*)	Tool steel.....		
128	Meters, electricity—		
(*a*)	Of less than 50 amperes.....	0 2 6 each	The whole duty.
(*b*)	Of 50 amperes and not exceeding 100 amperes.....	0 5 0 each	
(*c*)	Exceeding 100 amperes.....	0 10 0 each	
134	Pipes, piping, tubes, and fittings, of metal : for gas, steam, drainage, sewerage, irrigation, water supply and water pumping; not including grids, manhole covers and fittings, and surface boxes—		
(*a*)	Wrought-iron or steel pipes and tubes, not riveted, except downpipes and guttering.....	0 1 0 per 100 lb.	The whole duty.
(*b*)	Cast-iron pipes and tubes, except downpipes and guttering	0 0 8 per 100 lb.	The whole duty.
(*d*)	Downpiping and guttering and fittings therefor, and riveted wrought-iron or steel pipes and tubes.....	20 % *ad valorem*	5 % *ad valorem*
(*e*)	Cocks and taps, and meters and pipe fittings, n.e.e.....	5 % *ad valorem*	The whole duty.
(*g*)	Cisterns.....	20 % *ad valorem*	5 % *ad valorem*
(*h*)	Water meters for house connexions, not exceeding 1-in. piping.....	0 3 0 each	The whole duty.
143 (*b*)	Electrical cooking and heating appliances (including kettles and irons) : not being machinery elsewhere provided for.....	20 % *ad valorem*	5 % *ad valorem*
146	Mechanics' tools : being tools ordinarily used by mechanics or artisans, and not being agricultural implements or machine tools.....	3 % *ad valorem*	The whole duty.
153 (*b*)	Wire, except electric wire, millinery and brass picture wire, and wire made of precious metal.....	3 % *ad valorem*	The whole duty.
171	Glass—		
(*b*)	Polished plate—		
	(i) Exceeding 7 sq. ft. in measurement.....	0 0 7 per sq. ft.	0 0 1 per sq. ft.
	(ii) Not exceeding 7 sq. ft.....	0 0 5 per sq. ft.	0 0 1 per sq. ft.
(*c*)	Sheet (plain, clear)—		
	(i) Exceeding 16 oz. per sq. ft...	0 7 0 per 100 sq. ft.	0 1 0 per 100 sq. ft.
	(ii) Not exceeding 16 oz. per sq. ft.	0 5 0 per 100 sq. ft.	0 1 0 per 100 sq. ft.

PREFERENTIAL REBATES OF DUTY.—PART I (*continued*).

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
192	White lead—	£ s. d.	£ s. d.
(*a*)	Dry	0 7 0 per 100 lb.	0 1 0 per 100 lb.
(*b*)	Ground in oil—		
	(i) In packages containing 50 lb. weight or over	0 10 0 per 100 lb.	0 1 0 per 100 lb.
	(ii) In packages containing less than 50 lb. weight	0 11 0 per 100 lb.	0 1 0 per 100 lb.
260	Rubber manufactures—		
	Rubber pneumatic tyres and tubes—		
(*a*)	Tyres, including the weight of the immediate wrapper	0 1 0 per lb.	0 0 2 per lb.
(*b*)	Tubes for motor vehicles other than motor cycles	0 0 7½ per lb.	0 0 1½ per lb.
(*c*)	Tubes for motor cycles and cycles	0 1 0 per lb.	0 0 2 per lb.
261	Rubber tyres, solid : complete or in lengths or in the piece	0 0 3 per lb.	0 0 1 per lb.
	Paper—		
295 (*c*)	News print, in reels or in the flat	5 % *ad valorem*	The whole duty.

PART II.

To Products and Manufactures of Canada.

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
15 (*a*)	Wheat—	£ s. d.	£ s. d.
	(i) In the grain	0 1 7 per 100 lb.	0 0 2 per 100 lb.
	(ii) Ground or otherwise prepared	0 3 8 per 100 lb.	0 0 4 per 100 lb.
19 (*e*)	Fish, tinned (not specially provided for)	0 0 1½ per lb.	0 0 0½ per lb.
70	Hosiery, namely : socks and stockings	15 % *ad valorem*	5 % *ad valorem*
81	Twine—		
	(*a*) Seaming and binding, and harvest yarn	5 % *ad valorem*	The whole duty.
	Iron and steel—		
134	Pipes, piping, tubes, and fittings of metal : for gas, steam, drainage, sewerage, irrigation, water supply and water pumping ; not including grids, manhole covers and fittings, and surface boxes—		
(*a*)	Wrought-iron or steel pipes and tubes, not riveted, except downpipes and guttering	0 1 0 per 100 lb.	The whole duty.
(*b*)	Cast-iron pipes and tubes, except downpipes and guttering	0 0 8 per 100 lb.	The whole duty.
(*d*)	Downpiping and guttering and fittings therefor, and riveted wrought-iron or steel pipes and tubes	20 % *ad valorem*	5 % *ad valorem*
(*e*)	Cocks and taps, and meters and pipe fittings, n.e.e.	5 % *ad valorem*	The whole duty.
(*g*)	Cisterns	20 % *ad valorem*	5 % *ad valorem*
(*h*)	Water meters for house connexions, not exceeding 1-in. piping	0 3 0 each	The whole duty.
143 (*b*)	Electrical cooking and heating appliances (including kettles and irons) : not being machinery elsewhere provided for	20 % *ad valorem*	5 % *ad valorem*
146	Mechanics' tools : being tools ordinarily used by mechanics or artisans, and not being agricultural implements or machine tools	3 % *ad valorem*	The whole duty.
192	White lead—		
(*a*)	Dry	0 7 0 per 100 lb.	0 1 0 per 100 lb.
(*b*)	Ground in oil—		
	(i) In packages containing 50 lb. weight or over	0 10 0 per 100 lb.	0 1 0 per 100 lb.
	(ii) In packages containing less than 50 lb. weight	0 11 0 per 100 lb.	0 1 0 per 100 lb.
260	Rubber pneumatic tyres and tubes—		
(*a*)	Tyres, including the weight of the immediate wrapper	0 1 0 per lb.	0 0 2 per lb.
(*b*)	Tubes for motor vehicles other than motor cycles	0 0 7½ per lb.	0 0 1½ per lb.
(*c*)	Tubes for motor cycles and cycles	0 1 0 per lb.	0 0 2 per lb.
261	Rubber tyres, solid : complete or in lengths or in the piece	0 0 3 per lb.	0 0 1 per lb.
279	Wood : unmanufactured	3 % *ad valorem*	The whole duty.
295	News print, in reels or in the flat	5 % *ad valorem*	The whole duty.

PART III.

To Products and Manufactures of Australia.

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
		£ s. d.	£ s. d.
5	Butter	0 0 2¼ per lb.	0 0 0¼ per lb.
15 (*a*)	Wheat—		
	(i) In the grain	0 1 7 per 100 lb.	0 0 2 per 100 lb.
	(ii) Ground or otherwise prepared.	0 3 8 per 100 lb.	0 0 4 per 100 lb.
70	Hosiery, namely : socks and stockings	15 % *ad valorem*	5 % *ad valorem*
279	Wood : unmanufactured	3 % *ad valorem*	The whole duty.

PART IV.

To Products and Manufactures of New Zealand.

Tariff Item.	Article.	Maximum Duty.	Amount of Rebate.
		£ s. d.	£ s. d.
5	Butter	0 0 2¼ per lb.	0 0 0¼ per lb.
8 (*a*)	Cheese : made from milk or cream from which no fat has been abstracted and to which no animal or vegetable fat has been added	30 % *ad valorem* or 0 0 4 per lb. whichever duty shall	5 % *ad valorem* or 0 0 0½ per lb. be the greater.
21 (*b*)	Foods : patent or proprietary farinaceous and cereal foods	25 % *ad valorem*	5 % *ad valorem*
26	Hops : in bulk	5 %	The whole duty.
30 (*b*)	Meats, other than bacon and ham	0 0 1¼ per lb.	0 0 0¼ per lb.

EXCISE DUTIES WITH CORRESPONDING CUSTOMS DUTIES.

Article.	Excise Duty.	Customs Duty.
	s. d.	s. d.
1. Tobacco manufactured in the Union—		
(*a*) Ready for use in the making of cigarettes, per pound weight	0 6	Nil
(*b*) In the form of cigarettes, per pound weight	0 6	Nil
2. Tobacco manufactured in a country in South Africa the Government whereof has entered into a Customs agreement with the Government of the Union on importation into the Union—		
(*a*) Ready for use in the making of cigarettes, per pound weight	Nil	0 6
(*b*) In the form of cigarettes, per pound weight	Nil	0 6

§ 3. Trade Commissioner Services.

1. **Trade Commissioner of the Union in London.**—(i) *General.*—Until within a short period of the constitution of the Union the Cape was the only South African Government to have its own special trade representative in the United Kingdom. Just before the formation of the Union, however, the Natal Government appointed an officer under the title of Commercial Agent and both the Transvaal and Orange River Colony had attached to the offices of their Agents General in London officers specially charged with the supervision of trade and commercial matters. On the establishment of Union in 1910, these offices were merged in one and placed under the control of an officer styled the Trade Commissioner for the Union of South Africa, who with his staff formed an integral portion of the High Commissioner's Office in London, although housed in separate premises at 90 Cannon Street, E.C. This arrangement continued until the removal of the High Commissioner's Office to the new premises in Trafalgar Square, when opportunity was taken to house all sections of the High Commissioner's staff under one roof. The present Trade Commissioner is Mr. J. H. Dimond.

The work of the Trade Commissioner's Office is limited to the export trade of South Africa, and until the appointment of the Commissioner of Commerce (see paragraph 2), embraced all exports to the United Kingdom and to the Continents of Europe and America.

(ii) *Intelligence Service.*—The Union Department of Agriculture is advised by cable weekly of the prices obtaining and of the general trend of markets, and this information

forms a useful guide to the producer and shipper. Advice is also sent where the Trade Commissioner in his investigations discovers the likelihood of any developments affecting producers' interests. Sales of wool, mohair, feathers, hides, etc., are attended and closely watched, and constant visits are paid to the Baltic Exchange, Mark Lane, Mincing Lane, and other marketing centres. The office of the Trade Commissioner is called upon to reply to numerous trade inquiries, and considerable advantage is taken by the commercial public of the facilities the office affords in this connection. Many of these inquiries are made personally, and the South African merchants, producers, and shippers are making increasing use of the Trade Commissioner's services in prosecuting their inquiries and promoting their business in Great Britain. A useful function is performed in bringing producers and consumers into touch with each other and in giving business introductions where such are necessary.

(iii) *Inspection of Produce.*—The duties which fall under the heading of inspection are only slightly less important. Consignments of Union produce are examined and reports made on their condition and quality. Advice is given where goods fall short of market requirements and directions indicated in which alterations in packing, quality, or grading are desirable. Every shipment of fruit is inspected and faulty or damaged packs noted and reported on. This is a feature of the work which is of great benefit not only to growers but to the receivers who are only too eager to invite official inspection when cases of wastage arise.

(iv) *Propaganda.*—Trade propaganda has chiefly taken the form of exhibitions organized and run by the Trade Commissioner. In recent years these have been conducted on a scale hitherto not attempted by South Africa and they have attracted considerable attention both in England and on the Continent. In other less direct and less obvious ways the Trade Commissioner is called upon to take steps to widen existing markets and find new markets for South African products. The Trade Commissioner represents the High Commissioner on various Boards and Committees—e.g. the Empire Cotton Growing Corporation, the South African Committee of the Imperial Institute, Refrigeration Association, Poultry Association, etc. He is also a member of the South African Section of the London Chamber of Commerce and generally identifies himself with all trade movements in the United Kingdom which have a bearing on the trade interests of the Union.

2. **Commissioner of Commerce for the Union (Milan).**—The Office of the Commissioner for the Union on the Continent of Europe, with headquarters in Rotterdam, was created at the beginning of 1922, and Mr. Karl A. Spilhaus was appointed the first Commissioner. In September, 1924, he was succeeded by Mr. C. I. Pienaar, while in May, 1925, the headquarters were removed from Rotterdam to Milan.

The offices of the Commissioner for Commerce are now located at Milano (11), Via Manzoni 5, Italy.

A branch office is maintained at Hamburg, whilst honorary Trade Commissioners for the Union have been appointed at Helsingfors, Berlin, Genoa, Antwerp, Oslo, Paris, and Rotterdam.

3. **Trade Commissioner for the Union in East Africa.**—This office was established in October, 1923, Colonel Beresford Turner, C.M.G., D.S.O., being appointed to the post, with headquarters at Nairobi.

4. **Trade Commissioner for the Union in America.**—This office, with headquarters in New York, was created in the middle of 1925, and Mr. Eric Louw was appointed the first Commissioner.

5. **H.M. Trade Commissioner in South Africa.**—The post of His Majesty's Trade Commissioner was created in 1908 as a result of the Imperial Conference of 1907. An officer was appointed for each of the four larger Dominions by the Board of Trade to co-operate with their Commercial Intelligence Branch in fostering British trade; undertaking work similar to the commercial side of the activities of the British Consular Service in foreign countries. The scheme was in the nature of an experiment, and the organization proportionately small. The four Trade Commissioners were respectively instructed to open offices at Cape Town, Melbourne, Montreal, and Wellington. In 1918 steps were taken to carry out an important scheme of development as recommended by the Dominions Royal Commission, and it was decided to appoint Trade Commissioners in Calcutta and Bombay, the West Indies (Port of Spain, Trinidad), the East Indies (Singapore), as well as additional Trade Commissioners in the Dominions. In South Africa the Senior Trade Commissioner is stationed at Johannesburg, the Cape Town office remaining in charge of the additional Trade Commissioner. In Canada offices have been opened in Toronto, Winnipeg, and Vancouver, and for Australia the Second Trade Commissioner is located in Sydney. In addition, Imperial Trade Correspondents in the other chief commercial centres of these Dominions co-operate with the Trade Commissioners. In South Africa there are Imperial Trade Correspondents at Durban, Port Elizabeth, Bulawayo, Maseru (Basutoland), and Serowe (Bechuanaland), while similar posts have been created in Mauritius and St. Helena. There is also a Trade Commissioner at Nairobi, Kenya Colony.

The Commercial Intelligence Branch of the Board of Trade having been made with the Exhibitions Branch into a Department (the first fruits of which was the inauguration of an annual British Trade Fair) was in 1917 reconstituted as the Department of Overseas Trade, with a Parliamentary Under-Secretary, linking it alike with the Board of Trade and the Foreign Office, the whole commercial side of the Board of Trade being simultaneously reorganized in order to deal more effectively with British industry from the point of view of production, research, publicity, development, and intelligence.

A further development of the Trade Commissioners Service which is of particular interest and historical importance is its new Imperial aspect resulting from the decision of the Imperial War Conference. The services of H.M. Trade Commissioners in various parts of the British Empire were offered to the Government of India and to the Dominions in order to supplement an oversea intelligence organization of their own. This offer was accepted by the Union of South Africa, by India, and by New Zealand.

The primary object of the Trade Commissioner is to direct importers in South Africa, whether of finished manufactures, machinery for local production, or raw materials, to British sources of supply, and generally to work for the promotion of trade within the Empire. This obviously entails a close study of local requirements and of foreign competition in this market, as well as a knowledge of the capabilities of British producers and manufacturers oversea. It is also clear that there is almost unlimited scope for work in this field. The work is complementary and parallel to that of the Union Trade Commissioner in London, with whom the Department of Overseas Trade in London and the Trade Commissioners in South Africa are in constant touch.

His Majesty's Senior Trade Commissioner in South Africa is Mr. N. Emslie.

6. **American Trade Commissioner in South Africa.**—Since the establishment in 1912 of the United States Department of Commerce as a separate department, there has been a steady growth in the Bureau of Foreign and Domestic Commerce, in which are centred the trade promotion activities of the American Government. This Bureau has grown from a comparatively small organization until now there are four regional, seventeen commodity, six technical, and three administrative divisions, with a staff of 621 in Washington alone. In addition, there are eleven district offices, located in the principal commercial centres of the United States, and thirty-four co-operative offices which are maintained by local chambers of commerce. In the foreign field the Department of Commerce maintains forty-one offices, including the Johannesburg office, which was opened in 1920. The present American Trade Commissioner in Johannesburg is Mr. Perry J. Stevenson. A corps of travelling experts, investigating market conditions in the trades in which they are qualified authorities, is another feature of the foreign staff. In addition to these resources, the Department has the active co-operation of about one thousand American diplomatic and Consular Officers, located in every part of the world.

The chief function of the Bureau of Foreign and Domestic Commerce is assistance to American commerce in its broadest sense. Information on general commercial conditions, as well as on various trades and industries, is made available to the business public through many channels, especially the publications of the Bureau, of which a weekly "Commerce Reports" is the most important. Accurate, up-to-date reports which can be of practical value to American manufacturers and exporters, are received in Washington by cable and mail, and are promptly disseminated. The Foreign service is also interested in aiding firms located in their territories to find markets in the United States, especially for raw materials. A large part of the overseas representatives' attention is devoted to assisting importers and others who are desirous of securing American agencies, or purchasing American products.

7. **Canadian Trade Commissioner in South Africa.**—The Canadian Trade Commissioner Service was established by Order-in-Council on the 21st November, 1891, and the first officer was appointed in 1894. Since then the Service has extended and at present Canadian Trade Commissioners to the number of twenty-eight are stationed in various parts of the world, including South Africa. These activities of the overseas Trade Commissioners are supplemented by the appointment by the Canadian Department of Trade and Commerce of persons resident in other countries as part-time commercial agents who are allowed a small salary for services rendered. In addition, arrangements were made by the Canadian Government with the British Government in 1912, whereby a large number of British Consuls were placed at the disposal of Canadians who may wish to consult them on trade matters.

The purpose of the Canadian Trade Commissioner Service is to promote the sale of Canadian products abroad and to provide Canadian manufacturers and exporters with information regarding trade conditions in countries where Canadian goods are likely to find a market. In addition to this direct work for Canadian export, overseas Canadian Trade Commissioners submit to headquarters data in reference to raw materials, etc., on behalf of the producers or manufacturers in any Dominion where they may be placed.

As there is no regular line of steamships between Canada and Africa, the Canadian Government has subsidized a steamship service between Canada and South Africa.

8. **Trade Commissioner for Madagascar.**—A Trade Commissioner for Madagascar has been appointed at Durban.

9. **General.**—In May, 1925, the control of the Trade Commissioner Service, which up to that date had been exercised by several Departments of State, was definitely vested in the Department of Mines and Industries, and the Service now forms a section of the Board of Trade and Industries.

§ 4. Imports and Exports.

1. **South African Oversea Trade, 1826 to 1909.**—The earliest statistics relating to the oversea trade of South Africa are those of the Cape of Good Hope, dating from 1826. From the year 1862 records of imports and exports through Durban are available, and from 1905 the figures relative to the trade with the Transvaal through Delagoa Bay become accessible, although the railway line from Lourenco Marques and the Transvaal was opened as early as 1893. Prior to the last mentioned date, the whole of the trade of the States now comprised within the Union was carried through Cape and Natal ports, but after the opening of the Delagoa Bay–Transvaal railway line an increasing volume of trade was carried along that route.

Summarized particulars of the South African overseas trade from 1826 to 1909 will be found in the sixth and previous issues of this *Year Book*.

2. **Imports and Exports from 1906.**—The total value of imports and exports in respect of the territories comprising the Union from 1906 to 1909, and in respect of the Union from 1910, is given in the subjoined tables (i) and (ii), together with the net consumption of merchandise from 1909, and the balance of trade for the period from 1906. Table (iii) shows the total value of imports and exports (excluding specie) from 1906, with the value per head of the mean population, and per head of the mean European population, and the proportion per cent. of exports to imports.

(i) TOTAL VALUE OF IMPORTS OF MERCHANDISE, GOVERNMENT STORES, AND SPECIE INTO THE UNION, AND RE-EXPORTS FROM 1906, AND NET CONSUMPTION OF MERCHANDISE FROM 1909.

Year.	Imports.				Imported Goods Re-Exported.	Net Consumption of Merchandise.
	Merchandise.	Government Stores.	Specie.	Total.		
States now comprised in the Union—	£	£	£	£	£	£
Average: 1906–09.....	26,150,386	1,301,050	1,008,226	28,459,662	1,109,673	*25,654,986
Union—						
1910–14.....	34,962,288	2,972,817	1,266,963	39,202,068	1,457,797	33,643,141
1915–19.....	39,365,826	2,427,229	1,816,817	43,609,872	3,071,596	36,640,982
Year:						
1920.....	93,404,962	8,422,142	4,100,003	105,927,107	5,890,400	86,030,245
1921.....	49,878,292	7,922,024	401,021	58,201,337	4,432,496	49,157,740
1922.....	47,227,885	4,185,565	143,921	51,557,371	3,315,595	45,315,356
1923.....	54,544,390	3,270,050	22,321	57,836,761	2,884,706	52,065,433
1924.....	59,621,002	6,194,515	79,264	65,894,781	2,189,376	57,510,727
1925.....	63,085,785	4,704,813	8,718	67,799,316	2,420,021	†

* Year 1909 only.

(ii) TOTAL VALUE OF EXPORTS FROM THE UNION FROM 1906.

Year.	South African Produce.	Imported Goods Re-exported.	Specie.	Total.	Excess of Exports over Imports.
States now comprised in the Union—	£	£	£	£	£
Average: 1906–09.....	44,277,744	1,109,673	414,425	45,801,842	17,342,180
Union—					
1910–14.....	54,564,310	1,457,797	258,474	56,280,581	17,078,513
1915–19.....	*70,750,754	3,071,596	161,196	73,983,546	30,373,674
Year:					
1920.....	*93,006,083	5,890,400	100,803	98,997,286	6,929,821
1921.....	*69,921,658	4,432,496	115,846	74,470,000	16,268,663
1922.....	*61,662,929	3,315,595	72,257	65,050,781	13,493,410
1923.....	*78,162,388	2,884,706	313,824	81,360,918	23,524,157
1924.....	*82,067,596	2,189,376	75,228	84,332,200	18,437,419
1925.....	79,774,198	2,420,021	7,072,000	89,266,219	21,466,903

* Includes value of gold premium, which is estimated at £3,888,981 from the 24th July to the 31st December, 1919, £11,228,967 for 1920, £8,535,015 for 1921, £2,527,604 for 1922, £2,721,069 for 1923, and £4,019,911 for 1924. In subsequent tables the value of the gold premium is included.

† Not available.

(iii) IMPORTS AND EXPORTS FROM 1906 (INCLUDING GOVERNMENT STORES BUT EXCLUDING SPECIE).

Year.	Value.			Value per Head of Mean Population.									Proportion per cent. of Exports to Imports.
				Total Population.						European Population.			
	Imports.	Exports.	Total.	Imports.			Exports.			Imports and Exports.			Imports and Exports.			
States now comprised in the Union—	£	£	£	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	%
Average:																
1906–09....	27,451,436	45,387,417	72,838,853	4	18	2	8	2	3	13	0	5	60	13	8	165·3
Union—																
1910–14....	37,935,105	56,022,107	93,957,212	6	4	4	9	3	7	15	7	11	71	19	4	147·7
1915–19....	41,793,055	73,822,350	115,615,405	6	6	1	11	2	9	17	8	10	80	18	4	176·6
Year:																
1920.....	101,827,104	98,896,483	200,723,587	14	17	10	14	9	3	29	7	1	133	16	6	97·1
1921.....	57,800,316	74,354,154	132,154,470	8	6	5	10	14	0	19	0	5	86	15	11	128·6
1922.....	51,413,450	64,978,524	116,391,974	7	5	6	9	3	11	16	9	5	74	15	10	126·4
1923.....	57,814,440	81,047,094	138,861,534	8	1	2	11	5	11	19	7	1	87	18	0	140·2
1924.....	65,815,517	84,256,972	150,072,489	9	0	5	11	11	1	20	11	6	93	3	4	128·0
1925.....	67,790,598	82,194,219	149,984,817	9	3	0	11	1	11	20	4	11	91	11	11	121·2

3. **Imports into the Union.**—The following tables give particulars as to the value of various classes of articles, various articles in detail, and the total value of imports into the Union from the year 1910. Tables (i) and (ii) embrace imports of all articles of merchandise through all ports of entry into the Union (including the Portuguese port of Lourenco Marques), by sea or overland, and entered for immediate consumption, warehousing or direct removal overland to countries outside the Union. The value of removals from Southern and Northern Rhodesia under the Customs agreement is given in a separate column (as shown), which, from the year 1922, also includes South West Africa.

(i) VALUE OF IMPORTS OF VARIOUS CLASSES INTO THE UNION FROM 1910 (INCLUDING GOVERNMENT STORES BUT EXCLUDING SPECIE).

Year.	Animals (Living).	* Agriculture (Articles for use in).	Food and Drink.	Raw Materials for Manufacture.	Manufactured Articles.	Imports from Southern and Northern Rhodesia.	Total.
	£	£	£	£	£	£	£
Average:							
1910–14....	180,492	858,514	6,446,255	3,606,925	26,745,825	97,094	37,935,105
1915–19....	142,515	769,103	5,346,488	3,684,918	31,435,592	414,439	41,793,055
Year:							
1920.....	517,673	1,762,061	14,070,104	8,891,661	75,309,965	1,275,640	101,827,104
1921.....	299,409	1,294,930	5,398,033	4,498,271	45,783,017	526,656	57,800,316
1922.....	46,551	608,852	5,598,165	3,662,261	40,598,370	† 899,251	51,413,450
1923.....	35,248	1,000,000	6,903,443	4,852,308	43,760,051	†1,263,390	57,814,440
1924.....	25,911	1,413,288	7,626,295	5,305,946	49,886,628	†1,557,449	65,815,517
1925.....	52,023	1,784,439	8,017,811	5,059,567	51,689,961	1,186,797	67,790,598

* Includes agricultural machinery.
† Includes imports from South West Africa, valued at £437,273 in 1922, £559,769 in 1923, and £605,953 in 1924.

(ii) PROPORTION PER CENT. TO TOTAL VALUE OF IMPORTS INTO THE UNION OF IMPORTS OF VARIOUS CLASSES FROM 1910 (INCLUDING GOVERNMENT STORES BUT EXCLUDING SPECIE).

Year.	Animals (Living).	* Agriculture (Articles for use in).	Food and Drink.	Raw Materials for Manufacture.	Manufactured Articles.	Imports from Southern and Northern Rhodesia.	Total.
Average:							
1910–14....	0·48	2·26	16·99	9·51	70·50	0·26	100·00
1915–19....	0·34	1·84	12·79	8·82	75·22	0·99	100·00
Year:							
1920.....	0·51	1·73	13·82	8·73	73·96	1·25	100·00
1921.....	0·52	2·24	9·34	7·78	79·21	0·91	100·00
1922.....	0·09	1·19	10·89	7·12	78·96	†1·75	100·00
1923.....	0·06	1·73	11·94	8·39	75·69	†2·19	100·00
1924.....	0·04	2·15	11·58	8·06	75·80	†2·37	100·00
1925.....	0·08	2·63	11·83	7·46	76·25	1·75	100·00

* Includes agricultural machinery. † Includes imports from South West Africa.

(iii) VALUE OF IMPORTS INTO THE UNION OF RAW MATERIALS FOR MANUFACTURES AND MANUFACTURED ARTICLES FROM 1910 (INCLUDING GOVERNMENT STORES).

YEAR.	RAW MATERIAL FOR MANUFACTURES.		MANUFACTURED ARTICLES.					
	Metals and Minerals.	Other.	Furniture, etc.	Machinery, etc*.	Metal Manufactures (not Machinery).	Oilman's Stores.	Textiles.	Miscellaneous.
Average:	£	£	£	£	£	£	£	£
1910–14	1,588,090	2,018,835	1,211,647	2,357,945	2,443,769	1,334,261	10,271,663	9,126,540
1915–19	1,849,130	1,835,788	1,006,899	1,900,109	2,041,564	1,969,907	15,017,520	9,499,593
Year:								
1920...	3,967,806	4,923,855	3,083,455	4,501,945	6,788,170	4,384,014	30,872,662	25,679,719
1921...	2,194,436	2,303,835	1,608,337	5,070,946	4,037,718	3,489,710	14,638,677	16,937,629
1922...	1,708,146	1,954,115	1,390,753	2,598,351	3,194,572	2,728,523	17,470,952	13,215,219
1923...	2,174,753	2,677,555	1,645,551	3,065,967	3,988,348	2,903,446	17,831,119	14,325,620
1924...	2,633,540	2,672,406	1,739,943	3,245,700	4,547,354	3,269,991	18,072,516	19,011,124
1925...	2,456,444	2,603,123	1,693,983	3,340,581	4,459 252	3,318,734	19,387,480	19,489,931

*Excludes agricultural machinery which is included with articles for use in agriculture and excludes electrical machinery which is included with miscellaneous manufactured goods.

(iv) ANNUAL VALUE OF IMPORTS OF ARTICLES OF VARIOUS CLASSES INTO THE UNION, FROM 1910 (INCLUDING GOVERNMENT STORES).

(*a*) Articles for use in Agriculture.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Fodder and Forage.....	5,590	4,147	10,083	7,595	6,087	4,804
*Implements of all kinds.....	588,235	543,556	1,004,743	403,029	712,309	1,049,159
Manures and Fertilizers.....	137,681	103,461	196,258	98,855	168,678	266,844
Plants, Bulbs, and Trees	4,880	2,315	7,007	7,071	5,201	4,635
Seeds.....	42,673	25,133	28,451	21,094	23,714	24,891
Sheep and Cattle Dip.....	79,455	90,491	48,388	71,208	84,011	62,955
TOTAL.....£	858,514	769,103	1,294,930	608,852	1,000,000	1,413,288

* Includes agricultural machinery.

(iv) ANNUAL VALUE OF IMPORTS OF ARTICLES OF VARIOUS CLASSES INTO THE UNION FROM 1910 (INCLUDING IMPORTS FOR GOVERNMENT)—*contd.*

(*b*) Articles of Food and Drink.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Agricultural and Garden Produce—	£	£	£	£	£	£
Coffee, Raw and Roasted	650,359	641,338	609,982	725,901	788,773	1,028,102
Corn and Grain (including Malt)	877,455	823,053	413,367	473,336	1,348,798	1,619,050
Flour and Meal	631,602	415,973	422,893	409,174	575,829	522,709
Fruit, Fresh (including Nuts)	63,760	49,896	53,212	71,443	71,849	92,076
Fruit, Dried or Preserved, and Dates	75,783	61,981	63,025	84,654	77,658	76,650
Rice	358,868	406,151	480,446	423,081	483,586	501,785
Sugar and Sugar Products	468,417	174,143	432,330	585,799	185,545	143,062
Tea	270,942	373,215	439,169	556,127	693,952	771,951
Vegetables, Fresh	29,501	4,416	17,857	7,990	9,995	17,652
Vegetables, Preserved	36,038	21,276	17,006	20,797	29,437	28,311
Dairy Products—						
Butter and Butter Substitutes	260,267	122,890	106,831	75,087	159,038	192,942
Cheese	152 592	63,333	4,944	14,703	44,775	29,870
Milk, Condensed	416,670	339,526	385,033	237,031	335,645	304,201
Farm Produce (General)—						
Eggs, Fresh	62,771	3,877	8	3,743	4,028	4,896
Hams, Bacon, and Salted Meats	238,350	88,237	33,261	44,904	52,705	66,428
Lard	55 826	29,058	7,097	5,600	17,773	25,147
Meat and Poultry (Frozen)	92,365	2,168	2,520	4,369	3,355	2,767
Meat, Preserved	125,773	103,445	36,407	60,954	63,118	92,793
Miscellaneous Articles of Food and Drink—						
Aerated Waters	13,165	4,039	4,991	2,748	3,353	3,343
Ale and Beer	40,485	27,030	29,183	23,537	26,316	24,823
Biscuits and Cakes	66,821	25,185	14,086	15,078	13,023	13,695
Confectionery, Jams, and Jellies	279,337	207,683	254,680	327,183	328,125	323,525
Fish: Fresh, Dried, and Preserved	244,301	204,822	215,498	257,403	340,288	415,326
Pickles, Sauces, Condiments, and Spices	87,208	163,735	105,635	122,092	143,834	154,427
Wines and Spirits	420,309	451,744	662,277	473,784	466,555	474,224
All other Food and Drink (N.O.D.)	427,290	538,274	581,295	571,644	636,090	696,540
TOTAL.....£	6,446,255	5,346,488	5,398,033	5,598,165	6,903,443	7,626,295

(*c*) Raw Material.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Metals, Minerals, etc., Raw or Partly Manufactured—	£	£	£	£	£	£
Brass and Copper	35,752	51,357	89,822	35,119	44,846	79,859
Coal and Coke	72,629	23,408	5,526	6,967	4,101	1,822
Iron and Steel	916,232	1,033,545	1,438,053	1,267,952	1,553,477	1,796,023
Lead	16,934	20,545	16,417	20,466	15,944	18,023
Nitrates	233,689	265,140	361,118	141,690	235,105	298,251
Quicksilver	26,987	43,717	29,781	27,383	18,869	15,831
Sulphur	47,840	69,643	51,757	34,550	62,275	43,708
Tar, Bitumen, and Asphalt	30,164	38,412	61,350	70,775	75,485	120,286
Tin	81,197	51,175	71,418	37,772	72,146	185,386
Zinc	126,666	252,188	69,194	65,472	92,505	74,351
TOTAL.....£	1,588,090	1,849,130	2,194,436	1,708,146	2,174,753	2,633,540
Other Raw Material—						
Dye Stuffs	6,294	36,140	64,853	86,367	81,201	84,256
Glycerine for Manufactures	493,702	338,547	435,818	143,164	285,296	296,896
Hides and Skins	13,288	73,329	16,038	6,652	9,359	10,992
Hops	30,330	27,081	47,607	30,219	23,935	20,288
Horns	467	335	91	95	—	—
Leather, Unmanufactured	200,365	171,725	133,184	178,837	226,901	241,699
Stones, Marble, etc	27,151	10,691	28,932	16,264	21,997	33,894
Tobacco, Raw and Partly Prepared	45,607	32,392	28,463	12,152	1,186	4,823
Wax, Paraffin and Stearine	223,815	360,319	249,934	200,654	228,622	253,091
Wood, Raw and Partly Prepared	977,816	785,229	1,298,915	1,279,711	1,799,058	1,726,467
TOTAL.....£	2,018,835	1,835,788	2,303,835	1,954,115	2,677,555	2,672,406
TOTAL—ALL RAW MATERIAL.£	3,606,925	3,684,918	4,498,271	3,662,261	4,852,308	5,305,946

(iv) ANNUAL VALUE OF IMPORTS OF ARTICLES OF VARIOUS CLASSES INTO THE UNION FROM 1910 (INCLUDING IMPORTS FOR GOVERNMENT)—*contd.*

(*d*) Manufactured Articles.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Furniture and Other Articles for the Interior (exclusive of Hardware)—	£	£	£	£	£	£
Basketware	15,236	9,963	11,272	9,819	14,362	14,236
Brushware	63,336	65,773	81,162	79,604	93,495	87,242
Clocks and Watches	81,113	93,931	109,153	110,979	136,093	133,954
Furniture of all sorts, including Carpets	617,877	409,851	661,111	632,409	748,930	814,904
Glass and Glassware	225,171	269,307	445,343	339,608	387,640	429,275
Lampware	50,841	45,376	79,658	51,065	101,422	64,787
Mats and Matting	18,465	17,195	23,556	16,913	24,087	18,749
Plate and Plateware	139,608	95,503	197,082	150,356	139,522	176,796
TOTAL £	1,211,647	1,006,899	1,608,337	1,390,753	1,645,551	1,739,943
Machinery (not including Locomotives) and Articles in connection with—						
Antifriction Grease	46,862	58,387	79,694	52,805	60,395	70,409
Fire Engines	16,130	6,681	25,250	15,061	21,457	20,559
Manufacturing and Sawing Machinery	304,332	302,372	1,608,184	527,126	502,003	460,568
Mining Machinery	910,441	715,002	1,116,255	621,190	819,927	968,484
Printing Machinery	46,767	14,786	177,005	77,655	71,530	163,675
Water-boring Machinery	24,287	4,838	106,493	1,123	1,074	20,076
All other (N.O.D.) and parts thereof	1,009,126	798,043	1,958,065	1,303,391	1,589,581	1,541,929
TOTAL £	2,357,945	1,900,109	5,070,946	2,598,351	3,065,967	3,245,700
Metal Manufactures, other than Machinery—						
Brass and Copper Ware	44,753	39,256	93,370	73,324	87,323	149,731
Fencing Material—						
Wire, Standards, etc	519,979	145,021	315,616	591,314	905,279	1,141,522
Lead Manufactures	19,770	18,568	10,919	17,419	19,721	15,838
Tin Manufactures	39,267	37,231	61,776	34,858	40,660	40,846
Wire Rope	114,072	138,848	227,654	105,986	106,513	126,682
Zinc Manufactures	647	203	70	32	28	334
Hardware and Cutlery and Iron Manufactures, including Tools (N.O.D.)	1,705,281	1,662,437	3,328,313	2,371,639	2,828,824	3,072,401
TOTAL £	2,443,769	2,041,564	4,037,718	3,194,572	3,988,348	4,547,354
Oilman's Stores, including Ship Chandlers' Stores—						
Candles	24,836	1,768	2,725	5,491	1,513	931
Matches	3,664	3,679	1,584	3,313	3,643	3,774
Oils	756,563	1,326,292	2,812,758	1,986,838	2,047,852	2,468,352
Paints and Painters' Goods	201,954	267,199	352,027	372,672	455,473	403,221
Soap of all kinds	139,028	77,287	48,929	60,464	91,230	95,129
All other (N.O.D.)	208,216	293,682	271,687	299,745	303,735	298,584
TOTAL £	1,334,261	1,969,907	3,489,710	2,728,523	2,903,446	3,269,991
Textile Goods, Wearing Apparel, etc.—						
Apparel and Slops	2,607,521	2,641,738	3,004,855	3,341,624	3,677,336	3,895,964
Bags—Corn, Grain, Coal, etc.	437,339	983,628	766,420	884,340	1,193,859	948,733
Boots and Shoes	1,207,516	1,334,583	770,366	1,134,717	1,151,560	1,196,794
Canvas and Duck	75,345	248,672	129,415	184,619	229,109	219,844
Cotton Piece Goods	1,635,285	3,998,430	3,200,924	4,445,632	4,179,581	4,109,686
Cotton Manufactures (N.O.D.)	1,403,220	2,678,106	2,640,638	3,137,083	2,857,485	2,602,312
Haberdashery and Millinery	1,503,713	1,142,927	932,631	1,135,446	1,166,362	1,374,974
Hats and Caps	247,943	319,690	476,563	521,663	559,872	504,081
Jute Manufactures	31,810	74,924	39,632	55,215	59,908	52,835
Linen Piece Goods	6,832	5,944	32,739	38,313	34,524	53,770
Linen Manufactures	47,471	38,009	103,821	127,457	143,618	145,564
Silk Piece Goods	49,075	252,104	604,229	664,003	677,655	923,193
Silk Manufactures	41,616	56,424	189,687	326,777	257,528	303,686
Tents and Tarpaulins	72,963	30,039	45,511	26,584	31,535	16,838
Uniforms and Appointments	54,070	124,987	88,111	63,302	25,477	22,715
Woollen Piece Goods	332,692	543,629	829,718	693,457	809,263	849,338
Woollen Manufactures	517,252	543,686	783,417	690,720	776,447	852,189
TOTAL £	10,271,663	15,017,520	14,638,677	17,470,952	17,831,119	18,072,516

(iv) ANNUAL VALUE OF IMPORTS OF ARTICLES OF VARIOUS CLASSES INTO THE UNION FROM 1910 (INCLUDING IMPORTS FOR GOVERNMENT)—*contd.*

(*d*) MANUFACTURED ARTICLES—*continued.*

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Miscellaneous Manufactured Goods—	£	£	£	£	£	£
Arms and Ammunition	319,831	387,268	342,770	400,517	568,595	481,807
Beads	21,744	16,252	43,345	53,019	39,898	52,027
Binding Twine and Harvest Yarn	17,457	52,224	16,655	38,081	41,349	34,142
Bioscopes and Films	*	46,940	78,285	82,457	108,295	113,715
Blasting Compounds, including Dynamite	77,787	3,696	1,196	1,420	67,375	1,454
Boats	6 192	1,662	5,016	18,346	3,435	14,431
Cement	132,969	33,937	153,460	117,419	117,958	96,094
Cordage and Rope	51,407	85,011	75,763	39,377	60,869	55,765
Drugs, Chemicals, and Medicines	917,163	1,128,634	1,084,929	1,050,436	1,141,714	1,186,467
Earthenware and Chinaware (including Bricks)	154,894	171,020	447,037	413,410	330,366	334,240
Electrical Material and Machinery	1,121,578	665,150	2,219,579	1,035,343	1,893,320	2,970,532
Indiarubber Goods	43,796	496,787‖	344,558‖	610,864‖	508,847‖	596,516‖
Instruments, Musical	156,279	90,004	202,011	262,611	316,968	296,732
Instruments (N.O.D.)	39,222	42,473	160,087	90,920	101,528	101,411
Jewellery	158,153	100,833	74,645	65,764	107,345	129,841
Leather Manufactures (N.O.D.)	117,886	72,356	67,772	89,774	101,296	112,864
Paper of all sorts	341,369	777,749	1,216,120	682,345	865,555	903,987
Perfumery	77,056	167,717	223,061	243,399	207,971	206,189
Phonographs	79,562	19,206	59,648	74,701	128,103	181,749
Printers' Materials	51,171	51,650	61,162	48,319	62,672	49,646
Railway and Tramway Materials (including Locomotives)	1,934,013	1,397,360	4,816,292	1,308,853	1,172,400	3,143,501
Saddlery and Harness	76,608	13,956	23,122	24,207	52,497	59,449
Sporting Goods, Toys, and Tobacconists' Wares	263,877	299,775	500,578	554,575	536,247	512,266
Stationery and Stationers' Goods of all sorts	781,490	955,850	1,457,523	1,200,374	1,256,867	1,245,861
Tobacco: Cigars, Cigarettes, and other Manufactures	131,622	91,811	99,186	79,099	79,010	71,506
Vehicles of all sorts, not Motor	323,679	134,904‡	212,830‡	183,376‡	227,269‡	276,820‡
Vehicles, Motor, of all sorts	752,985	980,375‡	1,183,546‡	1,335,083‡	2,276,848‡	3,309,644‡
Wood Manufactures (not Furniture)	231,930	239,079	359,121	325,632	402,161	465,202
Works of Art	24,079	9,977	38,903	29,719	40,080	38,814
All other Articles not classified or specified	720,741	965,932	1,369,424	2,755,779§	1,508,782	1,968,452
TOTAL MISCELLANEOUS £	9,126,540	9,499,593	16,937,629	13,215,219	14,325,620	19,011,124

* Included with phonographs.
‡ Excludes tyres imported separately.
‖ Includes tyres imported separately.
§ Includes aeroplanes, airships, balloons, and parts thereof, value £1,463,456.

4. Exports from the Union.—The following tables give particulars as to the value of various classes of articles, the quantity and value of various articles in detail, and the total value of articles the produce of the Union exported each year from 1910 :—

(i) **ANNUAL VALUE OF EXPORTS FROM THE UNION FROM 1910 (INCLUDING SHIPS' STORES, BUT EXCLUDING SPECIE).**

Year.	Living Animals	Agricultural and Pastoral Produce.	Products of Mines.	Other Articles.	Exports to Southern and Northern Rhodesia.	Total South African Products.	Imports Re-exported.	Grand Total.
Average:	£	£	£	£	£	£	£	£
1910–14	38,082	10,244,899	43,404,617	350,701	526,011	54,564,310	1,457,797	56,022,107
1915–19	47,836	18,078,711	50,790,254	1,130,965	702,983	70,750,754	3,071,596	73,822,350
Year:								
1920	68,360	25,623,600	64,282,583	1,736,636	1,294,904	93,006,083	5,890,400	98,896,483
1921	54,142	17,899,393	49,786,167	1,072,288	1,109,668	69,921,658	4,432,496	74,354,154
1922	40,932	19,395,065	39,598,059	1,336,782	1,292,091*	61,662,929	3,315,595	64,978,524
1923	32,375	22,613,179	52,965,234	1,237,720	1,313,880*	78,162,388	2,884,706	81,047,094
1924	29,037	23,911,332	55,334,393	1,424,242	1,368,592*	82,067,596	2,189,376	84,256,972
1925	42,805	29,838,075	46,890,119	1,596,809	1,406,390	79,774,198	2,420,021	82,194,219

* Includes exports to South West Africa, valued at £386,776 in 1922, £437,242 in 1923, and £498,180 in 1924.

(ii) PROPORTION PER CENT. TO TOTAL VALUE OF VALUE OF EXPORTS OF VARIOUS CLASSES FROM THE UNION FROM 1910 (INCLUDING SHIPS' STORES BUT EXCLUDING SPECIE).

Year.	Living Animals.	Agricultural and Pastoral Produce.	Products of Mines.	Other Articles.	Exports to Southern and Northern Rhodesia.	Exports Total South African Produce.	Imports Re-exported.	Grand Total.
Average:								
1910–14	0·07	18·29	77·48	0·62	0·94	97·40	2·60	100·00
1915–19	0·07	24·49	68·80	1·53	0·95	95·84	4·16	100·00
Year:								
1920...	0·07	25·91	65·00	1·75	1·31	94·04	5·96	100·00
1921...	0·07	24·08	66·96	1·44	1·49	94·04	5·96	100·00
1922...	0·06	29·85	60·94	2·06	*1·99	94·90	5·10	100·00
1923...	0·04	27·90	65·35	1·53	*1·62	96·44	3·56	100·00
1924...	0·03	28·38	65·67	1·69	*1·63	97·40	2·60	100·00
1925...	0·05	36·30	57·05	1·94	*1·71	97.05	2·95	100.00

* Includes exports to South West Africa.

(iii) NUMBER AND VALUE OF LIVING ANIMALS EXPORTED ANNUALLY FROM THE UNION FROM 1910 (INCLUDING SHIPS' STORES).

(*a*) Number.

	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Bulls and Oxen	315	1,321	1,748	524	86	26
Cows and Calves	110	137	224	178	63	110
Donkeys and Jackasses	2	47	28	34	15	52
Goats	219	3,530	1,752	2,240	2,398	2,030
Horses	446	328	239	255	178	93
Mules	141	149	86	231	223	479
Ostriches	26	—	—	—	—	—
Pigs	2,189	2,511	1,793	762	931	273
Poultry	13,669	24,814	13,416	8,910	18,271	8,521
Sheep and Lambs	3,794	3,649	7,793	7,717	3,550	2,748

(*b*) Value.

	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Bulls and Oxen	3,942	13,593	18,312	6,490	2,746	988
Cows and Calves	1,316	1,821	4,674	6,525	4,057	2,093
Donkeys and Jackasses	16	324	140	117	122	127
Goats	221	3,139	1,788	2,642	2,387	2,383
Horses	12,901	7,724	4,945	4,211	3,301	1,452
Mules	4,085	3,653	1,567	3,340	3,984	10,880
Ostriches	933	—	—	—	—	—
Pigs	5,830	7,337	7,235	2,320	3,259	960
Poultry	2,357	5,276	4,454	2,435	2,934	1,888
Sheep and Lambs	4,031	4,532	9,392	9,951	5,897	4,557
All other animals	2,450	437	1,635	2,901	3,688	3,709
TOTAL.....£	38,082	47,836	54,142	40,932	32,375	29,037

(iv) QUANTITY AND VALUE OF EXPORTS FROM THE UNION OF PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL (OTHER THAN LIVING ANIMALS), FROM 1910 (INCLUDING SHIPS' STORES).

(*a*) Quantity.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Aloes.....lb.	773,391	825,234	549,504	564,079	815,922	770,772
Argol.....lb.	138,404	495,038	344,039	28,615	57,935	162,642
Arrowroot....lb.	43,119	8,398	7	—	—	—
Bark, wattle, and extract.....lb.	119,591,456	111,314,472	170,823,744	296,057,736	276,283,943	237,744,821
Buchu Leaves.lb.	204,271	130,161	124,842	124,046	204,297	152,657
Butter.....lb.	39,946	1,370,310	2,698,201	1,499,926	551,483	410,915
Cheese.....lb.	445	439,432	458,698	152,250	117,977	126,603
Coffee.....lb.	35,388	58,347	63,681	17,274	12,122	15,789
Corn, Grain, Pulse, and Meal—						
Barley.....lb.	89,812	2,139,924	12,478	132,186	34,755	22,780
Beans and Peas.....lb.	78,443	5,354,895	307,294	76,974	60,503	55,373
Bran.....lb.	524,608	1,513,784	1,019,095	1,262,060	804,150	464,964
Kaffir Corn.lb.	1,175,540	5,917,885	3,168,246	682,066	7,596	200
Maize.....lb.	199,722,008	374,486,906	777,246,032	544,179,967	1,128,314,250	143,896,566
Oats.....lb.	8,856,208	21,041,015	8,968,893	4,569,879	7,351,416	3,938,530
Wheat.....lb.	22,636	48,019	33,435	8,792	5,945	3,407
Wheaten Flour.....lb.	965,972	4,246,535	3,495,147	733,565	222,364	130,661
All other Corn, Grain, and Meal.....lb.	5,686,834	131,632,493	221,963,025	107,798,455	81,230 526	115,236,829
Cotton, Raw..lb.	31,796	152,669	914,268	1,606,627	2,585,622	3,299,388
Eggs.....No.	1,265,257	6,124,933	22,724,601	21,406,378	21,374,439	28,810,637
Feathers, Ostrich.....lb.	869,281	526,722	296,711	303,692	384,883	384,003
Flowers, Dried, lb.	81,279	19,091	31,642	48,661	40,089	52,934
*Fruit, Fresh, including Nuts..	—	—	—	—	—	—
Fruit, Dried...lb.	48,380	2,654,575	7,327,951	14,839,857	12,418,076	12,489,447
Hay and Fodder.....lb.	17,331,902	11,443,309	9,624,481	12,535,410	17,626,349	19,786,046
Hides and Skins—						
Ox and Cow.lb.	16,569,686	16,830,545	14,295,679	18,035,228	20,768,272	31,439,719
Goat.....lb.	7,984,707	7,822,790	3,489,928	6,287,205	6,601,052	7,724,180
Sheep.....lb.	28,041,336	31,527,527	27,949,822	38,989,200	32,096,340	29,527,431
Seal.....lb.	86,061	75,531	145,522	146,746	115,656	132,130
*All other kinds.	—	—	—	—	—	—
*Horns.....lb.	—	—	—	—	—	—
Meats.....lb.	335,888	29,919,827	4,668,770	2,817,428	2,225,663	10,172,836
Mohair.....lb.	19,717,080	14,791,396	17,128,915	25,792,749	14,987,851	13,666,125
Oatmeal.....lb.	19,781	446,087	44,084	5,836	4,729	1,816
*Plants, Bulbs, and Trees.....	—	—	—	—	—	—
Seeds.....lb.	—	1,530,569	1,305,177	1,390,697	3,308,629	5,386,232
Spirits—						
Brandy...Gall.	726	129,424	19,250	1,347	761	788
All other (Potable) Gall.	122,725	219,510	62,901	1,964	1,519	24,258
Sugar.....lb.	1,330,996	10,971,501	137,924,105	72,199,704	64,547,875	18,750,844
Sugar Products (Molasses and Treacle)....lb.	9,695,766	5,929,709	36,060	2,729,083	5,717,300	52,286,677
Tea.....lb.	87,610	157,822	51,831	255,680	133,018	9,781
Tobacco.....lb.	175,896	1,081,302	525,991	1,485,458	2,312,284	657,150
Tobacconists' Wares (Calabashes)....No.	—	12,994	14,853	7,203	38,782	45,085
Vegetables—						
Onions.....lb.	401,048	1,022,026	1,194,406	1,290,417	1,159,853	1,006,791
Potatoes....lb.	1,855,460	8,121,695	7,150,499	4,593,436	3,679,221	3,665,727
*All other Fresh	—	—	—	—	—	—
Wax—						
Bees.....lb.	301	38	34	2,631	2,207	30
Berry.....lb.	11,085	14,974	150	—	4,000	3,975
Wines.....Gall.	56 646	289 570	378,125	435,029	667,468	446,411
*Wood and Timber	—	—	—	—	—	—
Wool, Sheep's. lb.	145,360,585	144,923,598	230,421,915	209,783,144	161,487,578	174,595,153

* See Table (*b*).

(iv) QUANTITY AND VALUE OF EXPORTS FROM THE UNION OF PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL (OTHER THAN LIVING ANIMALS), FROM 1910 (INCLUDING SHIPS' STORES)—*continued.*

(*b*) Value.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Aloes	8,043	8,192	4,293	3,675	6,168	6,220
Argol	2,650	10,133	2,233	715	1,109	2,440
Arrowroot	957	106	1	—	—	—
Bark, wattle, and extract	277,545	350,566	570,127	1,003,139	925,381	840,772
Buchu Leaves	30,394	23 937	21,257	15,763	26,587	17,965
Butter	2,342	97,560	257,166	86,031	38,797	32,917
Cheese	19	24,626	28,046	8,432	7,500	7,483
Coffee	1,347	2,995	4,351	1,277	903	1,265
Corn, Grain, Pulse, and Meal—						
Barley	306	8,301	98	611	176	110
Beans and Peas	454	64,812	3,155	888	629	696
Bran	1,097	5,612	4,993	4,791	2,612	1,457
Kaffir Corn	2,337	17 871	10,182	1,821	35	2
Maize	408,642	1,154,884	2,295,769	1,426,376	3,084,334	492,001
Oats	23,688	84,428	30,904	16,782	25,766	13,316
Wheat	104	388	317	71	50	22
Wheaten Flour	4,181	41,403	41,964	8,459	2,557	1,517
All other Corn, Grain, and Meal	16,805	606,565	684,937	295,731	220,993	391,273
Cotton, Raw	930	8,437	36,527	70,831	123,696	170,781
Eggs	7,028	43,696	201,295	145,170	129,571	171,291
Feathers, Ostrich	2,286,386	627,959	461,533	393,919	339,903	353,162
Flowers, Dried	4,820	1,218	2,014	2,715	2,509	2,893
Fruit, Fresh, including Nuts	56,270	52,837	419,877	527,723	543,591	439,526
Fruit, Dried	1,293	61,657	193,660	311,304	229,586	214,165
Hay and Fodder	39,820	35,463	32,332	33,120	42,705	68,967
Hides and Skins—						
Ox and Cow	556,899	767,978	362.269	476 391	599 309	972,723
Goat	285,077	504,838	132.475	216 879	266 243	329,210
Sheep	708,963	1,499,955	713,341	1,237,828	1,592 952	1,857,179
Seal	3,409	3,800	12,111	14 034	14 507	17,456
All other kinds	1,449	5 844	6,680	8 043	12 825	20,391
Horns	12 332	7,647	11,486	23 670	20,461	19,000
Meats	8,041	719,168	173,490	84,137	61,434	147,207
Mohair	899,756	1,075,935	583,643	1 152 470	947,883	1,142,012
Oatmeal	200	5,989	1,116	137	98	25
Plants, Bulbs, and Trees	2,337	2,705	3,609	3,213	4,647	3,312
Seeds	851	31,909	26,348	23,628	42,277	44,930
Spirits—						
Brandy	252	50.362	23,220	1.100	496	604
All other (Potable)	3,931	25,853	10,561	1,115	1,318	2,278
Sugar	8,975	130,026	2,069,764	592,771	658,745	180,264
Sugar Products (Molasses and Treacle)	13,951	22,472	798	12,041	22.576	31,810
Tea	2 032	5,480	1,819	9,915	5,961	401
Tobacco	12,425	62,181	39,005	35,359	50,536	32,313
Tobacconists' Wares (Calabashes)	16,325	394	846	247	1,277	1,416
Vegetables—						
Onions	1,718	7,188	7,575	7,699	4,842	5,097
Potatoes	7,268	42,904	35,633	17,255	17,257	19,903
All other Fresh	11,899	27,588	38,317	32,052	28,317	24,066
Wax—						
Bees	20	3	6	82	87	3
Berry	441	587	10	—	192	149
Wines	11,578	65,532	94,367	77,254	104,977	58,570
Wood and Timber	3,565	4,246	7,038	7,459	10,618	6,819
Wool, Sheep's	4,493,747	9,674 481	8,236 835	11.000 942	12 388.186	15,763,953
TOTAL £	10.244,899	18,078,711	17,899,393	19,395,065	22,613,179	23,911,332

(v) QUANTITY AND VALUE OF THE PRODUCTS OF MINES EXPORTED FROM THE UNION FROM 1910 (INCLUDING SHIPS' STORES).

(*a*) Quantity.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
PRODUCE OF THE MINES.						
Asbestos....lb.	2,849,581	9,189,342	9,903,208	17,939,905	19,818,374	13,205,904
Coal—						
Bunker....Tons	1,392,301	1,702,460	1,636,445	1,429,869	1,807,971	1,816,021
Cargo....Tons	379,032	782,250	1,795,093	1,477,654	1,903,717	1,921,977
Copper Ore....Tons	8,332	10,561	205	111	2,929	509
Copper Regulus....Tons	14,502	6,331	—	—	2,562	2,027
Corundum....Tons	—	1,733	38	1,827	3,182	1,850
Diamonds....Carats	4,620,891	2,126,302	316,702	1,330,664	2,428,849	2,199,477
Gold, Raw....Fine oz.	8,034,081	*	8,124,186	6,912,027	9,179,159	9,464,468
Gold, Slag or Concentrates..lb.	—	—	7,390	19,985	145,486	52,460
Iron (Chrome) Ore....Tons	452	211	—	—	—	103
Lead Ore....Tons	—	—	5	36	57	231
Manganese Ore....Tons	577	71	—	—	—	164
Matte....Tons	—	—	—	—	—	—
Salt, Common and Table....lb.	124,348	4,773,563	1,331,836	633,427	281,432	252,242
Silver....Oz.	—	270	—	381,165	1,433,440	1,629,063
Tin Ore....Tons	3,241	2,501	1,712	1,514	1,992	2,440
Tungsten Ores....Tons	—	13	—	—	—	—
Zinc Ores....Tons	7	25	1,294	—	—	—
Other Ores and Minerals..Tons	—	—	—	—	—	—

N.B.—Ton = 2,000 lb. * Not available.

(*b*) Value.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Asbestos	21,011	68,970	105,434	160,469	174,817	110,710
Coal—						
Bunker	1,015,607	1,960,478	3,201,449	1,944,640	2,095,082	2,091,318
Cargo	157,414	563,700	1,949,014	1,061,350	1,190,688	1,211,580
Copper Ore	188,430	419,292	7,629	5,007	81,171	14,263
Copper Regulus	338,355	244,327	—	—	75,135	59,325
Corundum	—	17,620	614	22,554	35,847	14,402
Diamonds	8,688,803	6,332,586	1,355,487	4,386,554	7,207,087	7,133,370
Gold, Raw	32,666,162	40,909,508	42,988,601	31,840,882	41,711,658	44,222,411
Gold, Slag or Concentrates	22,174	—	850	4,000	41,364	15,684
Iron (Chrome) Ore	122	863	2	1	9	227
Lead Ore	1,205	295	40	790	604	2,673
Manganese Ore	485	282	11	—	—	584
Matte	515	—	—	—	—	—
Salt, Common and Table	118	7,529	2,346	696	318	288
Silver	*	53	—	60,986	171,745	188,662
Tin Ore	301,196	257,382	155,045	102,357	147,799	222,021
Tungsten Ore	—	1,682	—	—	—	—
Zinc Ores	55	323	6,940	—	—	—
Other Ores and Minerals	2,965	5,364	12,705	7,773	31,910	46,875
TOTAL....£	43,404,617	50,790,254	49,786,167	39,598,059	52,965,234	55,334,393

* Included with other ores and minerals.

(vi) QUANTITY AND VALUE OF ALL OTHER ARTICLES NOT ENUMERATED IN THE PRECEDING TABLES EXPORTED FROM THE UNION FROM 1910 (INCLUDING SHIPS' STORES).

(*a*) Quantity.

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Aerated Waters....Doz.	—	—	4,015	3,790	4,140	719
Ale, Beer, and Stout....Gall.	31,787	218,436	86,465	49,764	47,012	44,226
*Apparel and Slops	—	—	—	—	—	—
Bags....No.	4,067	10,601	20,475	—	150	—
Biscuits, Bread, and Cakes..lb.	60,570	371,994	226,424	121,133	104,796	84,214
Blasting Compounds....lb.	675,218	6,794,752	3,687,470	2,483,602	3,160,320	907,580
*Books, Printed	—	—	—	—	—	—
Candles....lb.	128,814	359,974	241,336	143,823	209,559	98,101
Confectionery and Jams...lb.	335,929	3,579,235	1,073,219	388,289	288,137	345,403
*Curiosities	—	—	—	—	—	—
*Drugs and Chemicals	—	—	—	—	—	—
Fish, Dried....lb.	1,496,647	2,035,232	2,570,773	1,646,346	3,007,222	2,907,777
Fish, Fresh....lb.	436,049	618,638	1,242,371	1,285,016	1,526,000	1,224,596
Fish, Preserved....lb.	2,045,633	3,629,613	2,853,490	3,994,297	3,007,592	3,569,288
Flour, ground from Imported Wheat....lb.	9,265,741	2,021,767	2,091,839	65,078	307,690	335,683

* See Table (*b*).

(vi) QUANTITY AND VALUE OF ALL OTHER ARTICLES NOT ENUMERATED IN THE PRECEDING TABLES EXPORTED FROM THE UNION FROM 1910 (INCLUDING SHIPS' STORES)—*continued.*

(*a*) QUANTITY—*continued.*

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
*Furniture	—	—	—	—	—	—
Glycerine lb.	754,903	43,081	30	90	—	—
*Haberdashery	—	—	—	—	—	—
Hats and Caps Doz.	—	134	47	60	—	—
*Iron and Steel Manufacture	—	—	—	—	—	—
Ivory lb.	746	1,013	2,933	1,828	2,643	1,490
*Jewellery and Platedware	—	—	—	—	—	—
*Leather and Leather Manufactures	—	—	—	—	—	—
Manures lb.	2,910,228	6,038,635	4,129,068	11,215,263	3,542,243	6,289,999
Matches Gross	3,896	46,062	63,168	21,183	10,623	5,673
Oil, Whale Gall.	1,811,352	703,590	244,799	3,988,849	2,228,731	2,142,478
Pickles and Sauces lb.	1,909	11,398	7,199	1,994	2,732	6,273
Soap lb.	110,687	1,317,028	545,754	173,160	146,377	197,662
*Stationery	—	—	—	—	—	—
*Tents and Tarpaulins	—	—	—	—	—	—
Tobacco—Cigars and Cigarettes lb.	8,676	166,675	119,825	67,276	47,398	56,512
*Vehicles	—	—	—	—	—	—
Whalebone lb.	—	—	19,703	1,134	90	—
Whale Residue lb.	—	126,597	153,455	289,738	2,504,174	17,754
*Wood Manufactures	—	—	—	—	—	—
*Works of Art	—	—	—	—	—	—
*All other Articles	—	—	—	—	—	—

* See Table (*b*).

(*b*) **Value.**

Articles.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Aerated Waters	1,506	3,408	1,255	341	403	58
Ale, Beer, and Stout	3,484	49,489	27,297	10,989	10,023	9,330
Apparel and Slops	232	9,827	5,925	510	727	297
Bags	47	312	995	—	38	—
Biscuits, Bread, and Cakes	1,049	13,811	11,343	5,443	4,346	3,515
Blasting Compounds	22,978	290,734	175,813	110,766	106,392	32,241
Books, Printed	2,610	788	1,223	2,402	1,052	1,428
Candles	2,267	13,984	9,265	4,582	4,767	2,230
Confectionery and Jams	5,687	91,339	38,001	10,631	9,091	9,687
Curiosities	1,560	324	1,163	518	800	359
Drugs and Chemicals	698	8,278	12,131	4,683	7,074	6,613
Fish, Dried	15,759	30,619	39,167	29,103	59,052	54,473
Fish, Fresh	6,159	12,269	32,489	34,530	41,172	28,600
Fish, Preserved	55,314	146,031	191,574	296,648	217,268	225,988
Flour, ground from Imported Wheat	30,761	13,873	25,594	336	1,636	1,618
Furniture	2,604	6,838	24,199	11,769	7,337	8,116
Glycerine	17,486	1,183	5	9	—	—
Haberdashery	426	313	742	1,141	142	64
Hats and Caps	9	242	145	73	—	—
Iron and Steel Manufactures	785	2,776	5,950	14,462	3,264	1,535
Ivory	224	323	1,178	630	875	607
Jewellery and Platedware	368	330	1,615	904	—	—
Leather and Leather Manufactures	2,796	32,724	28,279	6,145	3,525	4,580
Manures	9,740	51,372	31,317	43,466	14,334	24,898
Matches	550	8,162	14,183	4,316	1,920	1,091
Oil, Whale	106,989	54,162	25,191	447,833	253,590	264,742
Pickles and Sauces	103	640	450	91	94	244
Soap	1,386	29,466	19,957	5,813	4,396	5,290
Stationery	3,935	10,283	19,573	12,805	14,808	8,046
Tents and Tarpaulins	551	2,827	2,747	587	677	450
Tobacco—Cigars and Cigarettes	1,978	52,709	50,666	25,214	15,907	16,883
Vehicles	9,019	6,743	11,060	4,040	5,253	8,519
Whalebone	1,635	1,028	265	225	3	—
Whale Residue	12,622	1,632	3,080	2,114	11,601	109
Wood Manufactures	2,498	6,037	8,189	3,619	4,037	4,500
Works of Art	1,671	413	2,416	2,554	1,459	3,099
All other Articles	23,215	175,676	247,846	237,490	430,657	695,032
TOTAL £	350,701	1,130,965	1,072,288	1,336,782	1,237,720	1,424,242

5. **Foreign Trade.**—The tables below give particulars as to the value of the trade carried on by the Union with certain British and other countries since 1910. Every endeavour is made in the case of imports to allocate each item to the actual country of origin, and not to the country where shipment was made. In the case of exports the country of final destination is given as far as can be ascertained up to the time of shipment. From the restoration of more or less normal relations up to 1922, the direction of trade, as far as imports were concerned, tended to revert to pre-war conditions, except in the case of Rhodesia and Kenya Colony, with which countries there was considerable trade expansion. Among non-British countries Germany ranked second. Among the new European States the most notable increases in imports occurred in the case of Czecho-Slovakia, chiefly in cyanide of sodium, beads, glassware, and fancy goods, and of Finland, chiefly in wood and paper. The outstanding feature of exports was the considerable increase in the trade with the Continent. Germany for the last two years has resumed her former position as South Africa's chief foreign customer, taking a large quantity of wool, maize, bark, and hides and skins, a portion of which is undoubtedly distributed to other European countries. Holland and France in particular, and Italy and Belgium to a less degree, showed increases. In the case of Holland this was due mainly to a large export of whale oil. Although the United Kingdom nominally receives from 60 to 70 per cent. of the exports, such a statement is somewhat misleading, as a very large proportion merely constitutes entrepôt trade, part of the cargo shipped in South Africa being conveyed direct to the Continent. The great bulk of the Union's gold export, though sold in London, went to the United States, and the same country was one of the best customers for diamonds.

(i) VALUE OF IMPORTS INTO THE UNION FROM BRITISH AND OTHER COUNTRIES (SUMMARY) FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

YEAR.	From United Kingdom.	From other parts of the British Empire.	Total, British Empire.	From Other Countries.	Grand Total.
Average:	£	£	£	£	£
1910–14.....	22,366,497	4,230,520	26,597,017	11,338,088	37,935,105
1915–19.....	22,638,411	5,983,850	28,622,261	13,170,794	41,793,055
Year:					
1920.....	55,708,357	13,187,112	68,895,469	32,931,635	101,827,104
1921.....	33,829,762	6,467,481	40,297,243	17,503,073	57,800,316
1922.....	29,022,939	6,136,919	35,159,858	16,253,592	51,413,450
1923.....	31,678,832	8,331,115	39,409,947	18,404,493	57,814,440
1924.....	33,907,581	9,068,780	42,976,361	22,839,156	65,815,517
1925.....	33,908,998	9,797,333	43,706,331	24,084,267	67,790,598

(ii) VALUE OF EXPORTS FROM THE UNION TO BRITISH AND OTHER COUNTRIES (SUMMARY) FROM 1910 (INCLUDING SHIPS' STORES BUT EXCLUDING SPECIE).

YEAR.	To United Kingdom.	To other parts of the British Empire.	Total, British Empire.	To Other Countries.	Shipped as Stores.	Articles through the Post.	Grand Total.
Average:	£	£	£	£	£	£	£
1910–14....	49,472,184	1,819,012	51,291,196	3,568,580	1,107,669	54,662	56,022,107
1915–19....	*58,010,321	4,550,624	62,560,945	8,834,240	2,337,701	89,464	73,822,350
Year.							
1920.....	*71,164,485	7,904,198	79,068,683	15,513,347	4,135,835	178,618	98,896,483
1921.....	*55,164,735	6,691,465	61,856,200	8,775,200	3,553,776	168,978	74,354 154
1922.....	*47,518,005	4,972,273	52,490,278	10,187,754	2,189,422	111,070	64,978,524
1923.....	*59,822,834	†7,153,992	66,976,826	11,674,351	2,310,274	85,643	81,047,094
1924.....	*49,964,873	‡20,130,872	70,095,745	11,773,162	2,295,173	92,592	84,256,972
1925.....	44,174,683	19,620,072	63,794,755	15,870,198	2,425,607	103,659	82,194,219

* Includes value of gold premium.
† Includes value of gold premium (£109,462) on gold shipped direct to India.
‡ Includes value of gold premium (£1,412,253) on gold shipped direct to India.

(iii) PERCENTAGE VALUE OF IMPORTS INTO THE UNION FROM BRITISH AND OTHER COUNTRIES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Year.	From United Kingdom.	From other parts of the British Empire.	Total, British Empire.	From Other Countries.	Grand Total.
Average :					
1910–14.....	58·96	11·15	70·11	29·89	100·00
1915–19.....	54·17	14·32	68·49	31·51	100·00
Year :					
1920.....	54·71	12·95	67·66	32·34	100·00
1921.....	58·53	11·19	69·72	30·28	100·00
1922.....	56·45	11·94	68·39	31·61	100·00
1923.....	53·76	14·41	68·17	31·83	100·00
1924.....	51·52	13·77	65·29	34·71	100·00
1925.....	50·02	14·45	64·47	35·53	100.00

(iv) PERCENTAGE VALUE OF EXPORTS FROM THE UNION INTO BRITISH AND OTHER COUNTRIES FROM 1910 (INCLUDING SHIPS' STORES, BUT EXCLUDING SPECIE).

Year.	To United Kingdom.	To other parts of the British Empire.	Total, British Empire.	To Other Countries.	Shipped as Stores.	Articles through the Post.	Grand Total.
Average :							
1910–14....	88·31	3·24	91·55	6·37	1·98	0·10	100·00
1915–19....	*78·58	6·16	84·74	11·97	3·17	0·12	100·00
Year :							
1920.....	*71·96	7·99	79·95	15·69	4·18	0·18	100·00
1921.....	*74·19	9·00	83·19	11·80	4·78	0·23	100·00
1922.....	*73·13	7·65	80·78	15·68	3·37	0·17	100·00
1923.....	*73·81	†8·83	82·64	14·40	2·85	0·11	100·00
1924.....	*59·30	†23·89	83·19	13·98	2·72	0·11	100·00
1925.....	53 74	23·87	77.61	19.31	2·95	0·13	100.00

* Includes value of gold premium.
† Includes value of gold premium on gold shipped direct to India.

(v) ANNUAL VALUE OF IMPORTS INTO THE UNION FROM VARIOUS BRITISH COUNTRIES OF ORIGIN FROM 1910 (INCLUDING SHIPS' STORES, BUT EXCLUDING SPECIE).

Country of Origin.	Average : 1910–14.	Average : 1915–19.	1921.	1922.	1923.	1924.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
United Kingdom.....	22,367	22,638	33,830	29,023	31,079	33,908
Australia.....	1,793	1,336	1,783	1,414	2,103	2,269
Kenya Colony (late B.E.A.)...	6	60	65	93	96	100
British West Africa.....	4	39	3	4	6	3
British West India Islands....	11	32	6	18	8	18
Canada.....	754	1,286	1,637	1,273	1,842	2,167
Ceylon.....	192	224	242	339	486	576
Egypt.....	*	8	26	5	9	9
Hong-Kong.....	8	8	4	7	7	16
India.....	1,007	2,208	1,797	1,920	2,317	2,164
Malta.....	3	2	2	—	—	—
Mauritius.....	195	53	13	15	19	12
New Zealand.....	66	11	8	23	55	31
Nyasaland Protectorate.....	1	4	—	—	—	—
South Sea Islands.....	6	—	21	10	17	5
South West Africa.....	*	124	270	437	560	606
Straits Settlements.....	10	25	27	48	43	50
Zanzibar.....	2	121	22	28	15	8
Other parts of British Empire..	75	29	14	41	44	83
TOTAL.....£1,000	26,500	28,208	39,770	34,698	38,706	42,025
Imported from Southern and Northern Rhodesia—						
South African Produce.....	77	330	442	382	597	845
Not South African Produce..	20	84	85	80	107	106
TOTAL IMPORTS FROM ALL BRITISH COUNTRIES...£1,000	26,597	28,622	40,297	35,160	39,410	42,976

* See *Foreign Countries*, table (vii).

(vi) ANNUAL VALUE OF EXPORTS FROM THE UNION INTO VARIOUS BRITISH COUNTRIES FROM 1910 (EXCLUDING SPECIE).

Country of Destination.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
United Kingdom	49,312	57,738	54,800	47,275	59,632	49,737
Aden	2	120	167	30	99	149
Australia	91	251	208	353	748	172
Kenya Colony (late B.E.A.)	11	89	82	42	22	49
Canada	15	73	3	14	27	10
Ceylon	23	97	288	208	192	223
Egypt	†	471	294	77	106	14
India	58	64	978	428	2,028	15,923
Mauritius	33	149	234	117	144	79
New Zealand	7	35	47	25	33	27
South West Africa	*	364	373	387	437	498
Straits Settlements	168	253	172	178	356	505
Southern and Northern Rhodesia	526	703	1,110	905	877	870
Other parts of British Empire.	7	83	98	33	75	163
TOTAL SOUTH AFRICAN PRODUCE	50,253	60,490	58,854	50,072	64,776	68,419
Imports Re-exported:—						
United Kingdom	160	272	365	243	191	228
Southern and Northern Rhodesia	850	1,037	1,895	1,648	1,498	787
Other parts of British Empire.	28	762	742	527	512	662
TOTAL TO BRITISH COUNTRIES. £1,000	51,291	62,561	61,856	52,490	66,977	70,096

* See *Foreign Countries*, table (viii). † Included in *Other Foreign Countries*, table (viii).

(vii) ANNUAL VALUE OF IMPORTS INTO UNION FROM VARIOUS COUNTRIES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Country of Origin.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
Austria	133†	2†	10	36	57	92
Belgium	555	19	586	744	880	1,038
Belgian Congo	—	15	1	2	43	11
Czecho-Slovakia	—	—	47	141	173	200
Denmark	74	55	93	68	58	68
Finland	—	9	97	210	291	329
France	567	505	796	860	922	1,147
Madagascar	10	52	18	6	12	12
Other French Possessions	1	2	86	43	45	61
Germany	3,198	44	1,162	2,731	2,730	3,528
German East Africa	1	—	—	—	—	—
German South-West Africa	4	*	*	*	*	*
Greece	20	12	6	16	8	11
Holland	678	396	605	439	554	817
Dutch East India Islands	106	292	756	545	645	562
Italy	235	215	273	363	385	567
Norway	274	255	324	249	333	362
Poland	—	—	7	16	29	39
Portugal	36	55	25	24	32	40
Madeira	5	3	14	6	3	3
Portuguese East Africa	136	205	450	602	147	85
Portuguese West Africa	—	11	11	4	6	4
Russia	68	28	18	39	82	48
Spain	45	67	55	42	43	45
Canary Islands	3	1	1	1	1	1
Sweden	665	810	1,111	930	1,146	1,307
Switzerland	181	368	470	518	551	789
Turkish Empire	51	20	40	12	8	14
China	46	91	311	111	114	104
Japan	100	1,193	748	629	526	700
Persia	3	4	12	4	3	29
Siam	33	52	32	50	53	52
Egypt	5	*	*	*	*	*
Morocco	1	4	2	2	3	2
United States of America	3,156	7,193	8,327	5,805	7,151	9,144
Philippine Islands	3	1	2	2	1	1
Argentine Republic	76	311	76	138	286	275
Brazil	585	593	565	684	742	971
Chile	220	241	328	140	234	296
Costa Rica	17	7	3	3	2	4
Cuba	25	27	20	20	24	27
Mexico	1	4	4	5	9	18
Peru	4	—	—	—	—	—
San Salvador	2	—	1	1	—	—
Uruguay	11	6	1	3	3	3
Venezuela	2	1	—	—	2	2
Other Foreign Countries	2	2	9	9	67	31
TOTAL. £1,000	11,338	13,171	17,503	16,253	18,404	22,839
TOTAL UNION IMPORTS	37,935	41,793	57,800	51,413	57,814	65,815

* See table (v). † Austria-Hungary.

(viii) ANNUAL VALUE OF EXPORTS FROM THE UNION INTO VARIOUS COUNTRIES FROM 1910 (EXCLUDING SPECIE).

Country of Destination.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
Austria	3†	†	—	—	2	—
Belgium	594	244	1,077	1,214	1,304	1,646
Belgian Congo	14	76	118	95	66	66
France	151	312	1,027	1,722	2,653	2,867
Madagascar	1	36	29	6	19	7
Other French Possessions	5	38	56	11	26	22
Germany	1,736	—	2,416	2,875	2,592	2,953
German East Africa	2	—	—	—	—	—
German South-West Africa	93	*	*	*	*	*
Holland	30	53	365	757	1,868	1,576
Dutch East India Islands	3	6	5	56	14	33
Italy	32	19	87	257	258	662
Japan	—	1,885	467	156	67	88
Portugal	—	4	33	13	7	2
Madeira	2	1	19	11	17	11
Portuguese East Africa	114	257	289	260	201	167
Portuguese West Africa	7	25	25	8	12	7
Russia	7	7	—	—	1	2
Sweden	—	—	4	7	87	83
United States of America ‡	443	4,985	1,498	1,897	1,912	1,215
Argentine Republic	—	89	27	49	4	1
Other Foreign Countries	21	41	99	87	44	39
TOTAL (S.A. Produce).£1,000	3,258	8,078	7,641	9,481	11,154	11,447
Imported Goods Re-exported	310	756	1,134	707	520	326
TOTAL.....£1,000	3,568	8,834	8,775	10,188	11,674	11,773
TOTAL UNION EXPORTS	54,859	71,395	70,631	62,678	78,651	81,869

* See table (vi). † Austria-Hungary. ‡ Includes Philippine Islands and Hawaii.

(ix) ANNUAL VALUE OF MERCHANDISE THE PRODUCE OF THE UNITED KINGDOM, AUSTRALIA, CANADA, AND NEW ZEALAND, IMPORTED INTO THE UNION, AND AMOUNT OF REBATE GRANTED FROM 1910.

Year.	From United Kingdom.		From Australia.		From Canada.		From New Zealand.		Total.	
	Value of Imports.	Amount Rebated.	Value of Imports.	Amount Rebated.	Value of Imports.	Amount Rebated.	Value of Imports.	Amount Rebated.	Value of Imports.	Amount Rebated.
	£	£	£	£	£	£	£	£	£	£
Average:										
1910–14	18,836,049	529,248	1,487,090	41,887	667,165	17,866	60,597	1,321	21,050,901	590,322
1915–19	19,902,257	551,544	1,053,692	19,829	1,060,223	29,477	4,090	88	22,020,262	600,938
Year:										
1920	47,000,875	1,314,356	3,790,547	32,327	2,624,539	59,338	10,711	110	53,426,672	1,406,131
1921	27,105,021	751,218	1,288,343	20,135	1,398,153	39,500	7,813	50	29,799,330	810,903
1922	24,975,180	695,052	1,055,945	19,066	1,061,831	30,002	21,561	199	27,114,517	744,319
1923	27,540,758	766,421	1,608,972	32,915	1,680,883	46,910	23,105	381	30,853,718	846,627
1924	28,646,492	812,100	1,839,405	40,288	2,092,302	64,934	29,475	273	32,607,674	917,595

6. **Analysis of Trade with other Countries.**—The following tables contain an analysis of the trade of the Union with those countries from which are derived the principal imports into the Union, and to which is exported the bulk of the products. The tables also show in the cases of contiguous countries the extent of the entrepôt trade. The first two columns in each table give average values for periods of years, and the last three columns give the annual values for the last three years for which complete figures are available. Each table gives for comparative purposes the total value of the import and export trade with the country concerned. It will be seen that in the cases of some countries the trade is limited either to imports or exports; but in the large majority of cases trade is reciprocal.

These tables have been framed specially as the result of a detailed analysis of the statistical records of the external trade of the Union from the year 1910; and it will be obvious that the information has been presented in a way designed to give ready reference to the principal features of the Union trade with the countries with which it is chiefly concerned. Items of minor value have not been included owing to limitations of space.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910.

(i) UNITED KINGDOM.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 22,366,497	£ 22,638,411	£ 29,022,939	£ 31,078,832	£ 33,907,581
Animals (Living).....	73,964	59,484	33,205	24,783	14,006
*Agriculture (Articles for use in)	325,262	277,375	244,980	360,412	370,870
Food and Drink.....	1,726,502	1,132,642	1,172,560	1,342,165	1,327,116
Raw and Partly Manufactured Materials :—					
Iron and Steel.....	777,591	552,438	1,353,148	1,372,342	1,515,622
Other.....	639,009	557,306	472,279	628,703	738,611
Furniture and other Articles for the Interior.....	799,779	571,875	798,683	897,299	984,805
†Machinery (not Locomotives).	1,692,271	1,174,277	1,819,880	2,087,742	2,049,641
Metal Manufactures other than Machinery.....	1,596,921	1,243,588	1,719,199	2,597,107	2,765,140
Oilman's Stores.....	582,709	480,659	616,660	723,085	747,539
Cotton Manufactures and Piece Goods.....	2,425,861	5,397,462	5,969,869	5,572,361	5,046,402
Woollen Manufactures and Piece Goods.....	744,061	1,044,301	1,294,653	1,483,196	1,523,364
Apparel and Slops.....	2,225,329	2,501,341	2,939,973	3,335,331	3,448,658
Boots and Shoes.....	1,126,597	856,902	955,702	933,000	1,005,321
Textiles (N.O.D.).....	1,597,557	1,570,156	2,005,540	2,067,805	2,145,771
Drugs, Chemicals, and Apothecaryware.....	510,938	885,975	743,941	864,473	893,597
Electrical Material and Machinery.....	573,898	390,923	722,134	1,351,273	2,209,423
Railway and Tramway Material (including Locomotives).....	1,416,360	770,813	571,894	739,268	1,904,513
Stationery and Books.....	651,593	724,590	966,640	973,897	967,563
Aeroplanes, Airships, Balloons, and Parts.....	—	11,530	1,463,456	8,103	3,578
Arms and Ammunition.....	249,529	315,462	376,509	524,044	426,310
Earthenware and Chinaware (including Bricks).....	113,329	153,148	291,210	250,234	243,914
India-rubber Goods.....	36,168‡	265,757	240,720	229,342	253,887
Paper of all sorts.....	194,335	291,439	264,266	342,014	318,960
Sporting Goods, Toys and Tobacconists' Wares.....	151,069	170,422	344,147	337,407	325,780
Vehicles, Motors of all sorts..	428,177	140,924	237,284	305,817	519,194
EXPORTS.					
TOTAL EXPORTS.....	£ 49,472,184	£ 58,010,321	£ 47,518,005	£ 59,822,834	£ 49,964,873
SOUTH AFRICAN PRODUCE.	49,311,504	57,738,660	47,275,123	59,632,262	49,737,302
Gold (Raw).....	32,666,162	40,909,509	31,840,882	40,033,701	28,687,529
Diamonds.....	8,620,665	6,325,574	4,024,892	6,672,623	6,498,426
Copper.....	526,980	630,961	29,940	334,483	479,142
Tin.....	144,482	33,341	35,071	12,440	16,091
Asbestos.....	8,638	43,754	89,138	98,940	42,745
Charcoal.....	—	—	2,880	650	300
Wool (in Grease).....	2,362,578	3,172,908	4,884,459	4,794,472	7,136,829
Wool (Scoured).....	120,708	625,718	659,576	782,400	1,032,204
Mohair.....	892,115	785,994	762,414	822,522	990,504
Sheep and Goat Skins.....	899,935	1,212,105	947,067	987,594	1,298,125
Hides (Ox and Cow).....	509,859	703,824	296,171	341,937	590,784
Other Skins.....	4,627	9,286	17,720	19,237	23,865
Ostrich Feathers.....	1,874,328	414,054	254,803	212,787	252,439
Horns.....	11,641	5,405	14,808	9,103	4,856
Wattle Bark and Bark Extract	158,216	226,028	283,392	359,886	250,716
Raw Cotton.....	774	8,010	42,622	77,626	150,599
Blasting Compounds.....	—	185,627	257	4,084	55
Whale Oil.....	87,930	54,144	140,880	67,311	169,090
Fodder and Forage.....	10,132	24,845	26,108	33,721	60,585
Lucerne Seed.....	§	§	6,606	1,169	4,068
Maize Meal.....	832	529,941	259,557	210,252	383,130
Maize.....	177,235	955,225	781,786	1,801,716	320,127
Oats.....	8,316	57,582	5,389	7,557	2
Beans and Peas.....	3	53,512	45	—	—
Sugar and Products.....	20,186	70,932	593,459	670,810	201,702
Confectionery.....	348	57,438	5,631	4,191	3,589
Fruit (Fresh).....	46,368	33,214	504,733	527,242	425,529
Currants and Raisins.....	2	40,549	226,582	79,128	78,907

* Includes machinery.
† Excludes agricultural and electrical machinery
‡ Excluding rubber tyres shown with vehicl s prior to 1915.
§ Figures shown with N.O.D. prior to 1920.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(i) UNITED KINGDOM—*continued.*

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
EXPORTS—*continued.*					
Other Fruit (including Cordials, etc.)	915	22,187	69,473	85,693	162,599
Spirits (not potable)	96	15,286	13,062	339	6,102
Beef and Veal	482	130,783	4,794	3,270	1,213
Butter	246	75,499	71,998	21,324	19,618
Cheese	1	16,507	282	327	2,574
Eggs	832	23,502	118,041	108,765	155,307
Bacon and Ham	1	15,092	12,033	1,021	1,024
Fish	35,636	87,340	49,646	28,445	33,819
Lead	362	6,128	49,022	91,696	130,820
Silver	1,635	36	60,986	171,745	12,005

(ii) AUSTRALIA.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS	£ 1,793,295	£ 1,336,022	£ 1,413,892	£ 2,103,402	£ 2,269,230
Sheep and Lambs	27,867	14,527	12,360	5,583	8,881
Wheat	621,090	418,349	295,332	847,324	1,041,455
Flour and Meal (Wheaten)	372,017	237,481	319,446	450,503	398,677
Butter and Substitutes	115,547	49,621	4,154	50,858	96,296
Condensed Milk	9,121	59,043	84,766	55,462	53,381
Food and Drink (N.O.D.)	204,126	87,915	91,332	88,849	71,971
Wood (Unmanufactured)	44,835	19,544	40,837	102,472	59,150
Railway Sleepers	187,032	101,443	402,688	331,475	379,383
Tallow and Substitutes	74,251	51,962	67,105	60,243	70,023
Boots and Shoes	25	2,224	573	34	—
Leather and Leather Manufactures (Other)	84,755	80,447	41,475	43,329	32,299
EXPORTS.					
TOTAL EXPORTS	£ 96,280	£ 273,185	£ 368,858	£ 755,834	£ 177,476
SOUTH AFRICAN PRODUCE.	90,949	251,234	352,977	748,073	172,454
Blasting Compounds	21,871	80,645	97,773	86,106	18,116
Goat Skins	190	7,589	422	1,120	460
Asbestos	—	9,579	28,479	38,233	19,894
Maize	33,211	81,227	146,129	462,523	22,257
Wattle Bark	18,651	31,012	21,033	47,873	20,537
Fish	2,011	1,086	27,891	69,136	62,318

(iii) CANADA.

Classification.	Average: 1910–14	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS	£ 753,532	£ 1,285,718	£ 1,272,951	£ 1,841,714	£ 2,167,088
Flour and Meal (Wheaten)	239,836	114,617	84,790	106,608	115,591
Milk (Condensed)	7,196	10,932	14,515	36,784	16,373
Wood and Timber (Manufactured and Unmanufactured)	75,509	85,747	71,800	62,965	126,410
Iron and Steel	2,646	66,441	12,705	12,511	10,510
Ploughs, Harrows and Parts	*	129,815‡	6,842	43,070	101,526
Hardware and Cutlery (including Tools)	3,859	138,541	77,135	87,960	41,682
Motor Vehicles	71,252	184,661	455,274	788,610	813,972
Rubber Tyres	†	13,632	58,356	58,603	107,828
Paper of all sorts	47,798	132,745	177,164	143,623	187,679
Wheat	48,495	25,669	18,776	190,806	240,360

* Figures shown with N.O.D. prior to 1919. † Figures shown with vehicles prior to 1915.
‡ Year 1919 only.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(iii) CANADA—*continued.*

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			EXPORTS.		
TOTAL EXPORTS.....	£ 15,051	£ 73,925	£ 14,188	£ 27,042	£ 9,724
SOUTH AFRICAN PRODUCE.	14,860	73,594	14,188	27,039	9,651
Wool (Scoured).....	128	56,926	9,661	16,855	6,445
Wool (in Grease).....	56	7,107	225	2,599	—

(iv) SOUTH WEST AFRICA.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924
			IMPORTS.		
TOTAL IMPORTS.....	£ 4,125	£ 123,898	£ 437,273	£ 559,769	£ 605,953
Oxen.....	—	43,829	223,110	280,868	292,434
Sheep and Goats.....	—	21,248	76,628	125,180	148,824
Hides and Skins.....	3,095	43,224	17,862	27,450	22,384
Butter.....	4	1,261	16,752	29,496	58,522
Wool.....	25	6,358	2,364	5,112	5,840
Fish, Dried and Preserved....	37	—	21,733	28,062	16,606
			EXPORTS.		
TOTAL EXPORTS.....	£ 149,629	£ 921,384	£ 813,899	£ 873,055	£ 1,090,896
SOUTH AFRICAN PRODUCE.	92,564	364,508	386,776	437,242	498,180
Corn, Grain, and Meal.....	41,066	71,609	84,602	90,662	110,570
Sugar.....	156	39,161	46,471	56,778	68,124
Confectionery.....	4,161	14,318	15,809	18,712	24,147
Vegetables (Fresh).....	2,332	17,412	9,035	10,006	14,066
Tobacco.....	2,049	47,653	51,514	58,781	60,010
Spirits (Potable).....	68	22,145	19,141	13,840	17,349
Food and Drink (N.O.D.).....	7,229	67,434	43,923	47,378	49,695
Soap.....	48	11,367	12,885	11,842	13,207
Boots and Shoes.....	541	11,968	13,084	20,526	27,214
All other Leather and Leather Manufactures.....	1,642	7,185	6,388	7,601	11,866
IMPORTS RE-EXPORTED..	£ 57,065	£ 556,876	£ 427,123	£ 435,813	£ 592,716
Flour and Meal (Wheaten).....	2,372	12,492	530	763	1,004
Coffee (Raw and Roasted).....	1,903	22,815	26,347	22,665	24,521
Spirits.....	34	20,664	9,671	3,196	1,242
Food and Drink (N.O.D.).....	21,785	87,223	41,540	43,403	50,898
Furniture.....	914	4,717	5,368	4,334	6,255
Iron and Steel.....	1,003	3,878	6,029	7,092	9,989
Machinery.....	2,993	5,516	11,647	12,912	28,417
Motor Cars and Cycles.....	219	7,480	9,641	10,421	30,613
Hardware and Cutlery.....	2,287	19,326	11,875	15,313	30,237
Oils.....	1,675	27,119	16,830	19,992	22,357
Cotton Manufactures (Piece Goods).....	604	77,248	58,947	53,995	74,205
Cotton Manufactures (all others)	711	49,362	38,819	37,421	21,384
Apparel and Slops.....	2,403	45,432	35,783	42,552	60,848
Haberdashery and Millinery...	4,905	24,738	7,869	10,524	14,436
Boots and Shoes.....	857	27,538	7,753	8,543	10,975

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(v) RHODESIA, SOUTHERN AND NORTHERN.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 97 095	£ 414,439	£ 461,978	£ 703,621	£ 951,496
Cattle.....	168	124,877	95,651	169,396	217,050
Maize.....	5,468	15,983	139	14,341	28,035
Maize Meal.....	1,672	12,502	1,731	5,873	22,941
Tobacco (Unmanufactured)....	35,095	50,880	157,023	232,380	311,626
Other Food and Drink.....	2,925	15,243	20,604	38,342	77,639
Hides and Skins.....	15,113	69,595	44,156	54,830	56,018
Bioscopes and Films.....	*	49,942	40,277	73,321	80,740
EXPORTS.					
TOTAL EXPORTS.....	£ 1,375,917	£ 1,740,454	£ 2,553,033	£ 2,374,399	£ 1,657,639
SOUTH AFRICAN PRODUCE.	526,011	702,988	905,315	876,638	870,412
Animals (Living).....	67,450	60,554	66,622	70,361	42,723
Sugar and Products.....	32,096	48,868	57,402	69,998	73,749
Confectionery.....	10,570	23,340	28,361	33,692	32,040
Flour and Meal (Wheaten)....	28,241	43,447	48,608	29,029	29,584
Other Corn, Grain, and Meal..	37,919	17,729	30,599	13,330	12,028
Cigarettes.....	39,703	58,725	92,620	100,478	101,461
Spirits and Wines.....	18,530	31,761	33,836	29,435	32,319
Food and Drink (N.O.D.).....	108,114	97,309	115,443	106,848	95,688
Soap.....	13,816	28,836	36,753	36,479	37,532
Candles.....	20,851	32,670	21,719	9,989	9,359
Furniture.....	11,152	17,437	28,846	22,727	27,525
Vehicles.....	24,691	13,411	10,787	12,248	21,372
Blasting Compounds.....	18,240	82,799	100,840	93,476	93,545
Boots and Shoes.....	575	9,889	18,895	21,165	27,248
Stationery and Books.....	4,716	10,989	19,283	19,943	16,018
Apparel and Slops.....	12,139	11,122	14,059	14,904	11,503
Matches.....	6,509	7,634	10,582	11,883	11,610
Manures and Fertilizers.....	4,073	2,591	10,317	14,162	22,110
IMPORTS RE-EXPORTED..	£ 849,906	£ 1,037,466	£ 1,647,718	£ 1,497,761	£ 787,227‡
Spirits (Potable).....	21,724	16,258	28,897	19,427	15
Other Food and Drink.....	110,176	75,582	122,426	125,819	34,898
Iron and Steel.....	9,893	16,086	20,870	17,869	17,216
Motor Cars and Cycles.....	21,968	35,265	71,222	79,921	40,219
Hardware and Cutlery.....	38,724	34,281	76,866	58,260	34,160
Implements (including Agricultural Machinery) and Tools..	15,596	23,491	22,383	23,703	30,352
Machinery.....	47,456	52,049	83,366	73,788	82,665
Electrical Material and Machinery.....	8,883	11,501	26,634	36,068	23,073
Arms and Ammunition.....	15,448	11,925	12,674	10,400	3,670
India-rubber Goods.....	611†	20,973	33,307	27,493	20,091
Drugs, Chemicals, and Apothecary Ware.....	16,770	21,847	27,489	23,577	19,777
Cotton Manufactures:—					
Piece Goods.....	55,765	131,807	201,902	144,788	32,919
All other.....	69,513	124,701	199,835	138,971	45,872
Apparel and Slops.....	105,708	100,588	129,261	119,665	41,932
Haberdashery and Millinery...	46,209	44,416	76,621	54,825	15,402
Hats and Caps.....	10,019	9,774	15,078	13,238	2,288
Boots and Shoes.....	29,922	33,808	45,197	40,769	7,453
Bags (Coal, Grain, and Wool)..	4,943	7,864	5,398	8,868	9,447
Stationery and Books.....	23,989	24,618	38,910	40,979	27,721
Bioscopes and Films.....	*	39,236	40,633	54,630	48,652
Silk Manufactures.....	712	4,750	28,185	29,504	19,934
Woollen Manufactures.....	11,544	10,842	24,313	22,332	8,950
Furniture.....	18,237	12,373	22,366	20,102	8,354
Blasting Compounds.....	2,385	6	117	41,811	694

* Figures shown with phonographs and accessories prior to 1915.
† Excludes rubber tyres shown with vehicles prior to 1915.
‡ From 1924 goods in transit are excluded.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(vi) KENYA COLONY (BRITISH EAST AFRICA).

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 5,566	£ 59,731	£ 92,611	£ 95,792	£ 99,743
Coffee (Raw).....	415	37,656	36,925	40,538	28,066
Beans and Peas.....	3,196	648	1,484	3,111	19,401
Maize.....	51	—	3	—	—
Copra.....	*	5,276	28,790	21,182	22,317
Oil Seeds, Nuts, and Beans....	*	636	14,693	14,508	12,358
EXPORTS.					
TOTAL EXPORTS.....	£ 14,460	£ 165,401	£ 68,183	£ 41,475	£ 71,731
SOUTH AFRICAN PRODUCE.	11,250	89,089	41,824	21,950	48,612
Animals (Living).....	2,629	1,786	1,401	2,390	1,840
Sugar.....	5	6,576	1,965	1	1,092
Ale Beer, and Stout.....	461	12,022	4,624	2,168	2,255
Coal (Cargo).....	2,465	16,670	17,034	3,354	21,372
Carriages and Carts.....	3,218	1,014	976	3,237	5,929
Tobacco.....	402	13,444	2,053	2,404	2,202

(vii) PORTUGUESE EAST AFRICA.

Classification.	Average 1910–14.	Average 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 136,026	£ 205,118	£ 602,043	£ 146,802	£ 85,135
Sugar.....	87,433	93,491	519,255	76,358	1
Copra.....	*	722	11,643	6,186	10,031
Ground Nuts.....	15,997	16,492	11,966	20,240	11,588
Oils, Salad.....	5	7,611	5,926	4,794	4,557
Oil Seeds, Nuts, and Beans....	*	20,685	8,788	4,521	23,109
EXPORTS.					
TOTAL EXPORTS.....	£ 195,190	£ 546,198	£ 441,681	£ 352,357	£ 359,411
SOUTH AFRICAN PRODUCE.	114,074	256,659	259,997	200,708	167,096
Cattle (for Slaughter).....	—	11,051	3,112	177	—
All other Animals (Living)....	9,848	18,445	15,026	14,400	8,210
Coal (Cargo).....	40,843	17,011	22,487	22,546	25,923
Maize and Maize Meal.....	24,299	53,143	80,336	13,083	5,280
Potatoes.....	4,261	13,416	7,579	10,248	11,598
Tobacco (Unmanufactured)....	424	6,748	3,145	8,452	4,824
Cigarettes.....	1,195	6,944	4,581	1,515	173
Cigars and other Tobacco.....	828	2,943	2,611	1,071	188
Other Food and Drink (N.O.D.)	14,784	64,774	48,863	53,555	50,181
Soap.....	869	2,975	2,684	2,538	1,852
Candles.....	3,204	3,879	2,086	1,812	1,191
Furniture and Cabinet Ware..	965	2,037	3,373	2,048	2,565
Leather and Leather Manufactures.....	299	3,972	3,345	2,189	2,830
IMPORTS RE-EXPORTED....	81,116	289,539	181,684	151,649	192,315
Flour and Meal (Wheaten)....	520	15,259	7,434	7,064	4,550
Machinery.....	8,266	28,108	20,767	19,468	19,290
Motor Cars and Cycles.....	2,575	15,703	14,415	16,032	14,447
Electrical Fittings and Machinery	3,260	10,894	12,335	10,638	10,108
Iron and Steel.....	3,083	15,486	9,167	5,923	7,503
Implements and Tools (including Agricultural Machinery).....	2,824	7,578	4,631	5,777	18,566
Hardware and Cutlery.....	6,730	13,379	12,849	11,665	6,839
Cotton Manufactures.....	1,128	23,430	8,296	5,760	4,750
Bags (not leather).....	1,577	10,295	5,271	2,793	5,225
India-rubber Goods.....	161†	10,725	10,769	3,837	2,263
Tea.....	194	1,961	3,167	3,431	6,286
Furniture and Cabinet Ware..	2,118	3,185	2,944	2,691	4,860

* Figures shown with N.O.D. prior to 1915.
† Excludes rubber tyres shown with vehicles prior to 1915.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(viii) BELGIAN CONGO.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			EXPORTS.		
TOTAL EXPORTS.....	£ 129,068	£ 327,069	£ 507,266	£ 298,914	£ 142,473
SOUTH AFRICAN PRODUCE.	13,758	76,105	94,704	66,409	66,246
Cigarettes.....	136	9,031	18,672	12,333	14,228
Wines and Spirits.....	1,530	6,711	5,670	2,146	1,047
Blasting Compounds.....	50	4,372	10,224	14,402	12,767
Cheese.....	8	641	2 345	1,974	2,273
Eggs.....	1,136	3,086	6,733	3,559	1,703
Sugar.....	947	3,738	5,776	6,288	5,266
Soap.....	359	3,132	2,495	1,276	1,798
IMPORTS RE-EXPORTED....	115,310	250,964	412,562	232,505	76,227
Spirits and Wines.....	9,099	15,070	24,347	13,010	1,463
Cotton Manufactures.....	12,157	39,371	85,874	43,427	5,721
Apparel and Slops.....	9,619	10,102	30,049	14,556	2,939
Iron and Steel.....	2,582	12,114	9,346	10,532	8,207
Machinery.....	3,592	14,899	21,820	22,203	5,603
Hardware and Cutlery.....	6,480	12,247	20,838	10,451	5,044
Drugs, Chemicals, and Apothecary Ware.....	2,190	9,336	10,658	7,394	1,996
Electrical Fittings and Machinery	612	4,217	12,902	7,216	2,402
Boots and Shoes.....	1,460	3,662	10,124	8,087	62
Motor Cars and Bicycles.....	1,061	5,636	17,766	6,467	4,611

(ix) MAURITIUS.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			EXPORTS.		
TOTAL EXPORTS.....	£ 42,750	£ 184,508	£ 147,754	£ 167,649	£ 101,861
SOUTH AFRICAN PRODUCE.	32,503	149,467	116,866	144,143	78,695
Fish (Dried and Cured).....	14,805	23,536	14,818	23,877	19,092
Wines.....	941	19,541	49,353	77,674	21,743
Coal (Cargo).....	2,792	31,307	13,158	5,581	6,472
Manures and Fertilizers.....	1,223	32,402	5,298	2,927	9,858
Oats.....	9,150	14,364	10,045	15,984	11,658

(x) EGYPT.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			EXPORTS.		
TOTAL EXPORTS.....	£ 3,710	£ 475,303	£ 77,153	£ 106,880	£ 14,976
SOUTH AFRICAN PRODUCE.	3,273	471,220	76,653	106,432	13,657
Coal (Cargo).....	1,922	54,316	74,551	100,016	5,295
Beef and Veal.....	—	378,440	—	—	—
Bark, Wattle, and Extract....	765	553	2,007	4,737	7,633

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(xi) BELGIUM.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 554,629	£ 18,908	£ 743,597	£ 879,915	£ 1,037,872
Cotton Manufactures.....	74,175	721	227,296	218,694	223,727
Glass and Glassware (mostly Window).....	35,333	6,511	69,022	74,321	73,507
Fencing Standards.....	79,834	1,906	84,142	132,214	182,657
Nails and Screws.....	13,125	116	14,344	28,334	22,094
Zinc (Unmanfactured).....	14,591	201	52,837	83,287	63,051
Manures and Fertilizers.....	5,938	—	37,425	27,049	44,688
Glycerine for Manufacturing Purposes.....	1,695	—	6,686	47,409	7,604
EXPORTS.					
TOTAL EXPORTS.....	£ 597,941	£ 244,288	£ 1,217,884	£ 1,306,111	£ 1,649,846
SOUTH AFRICAN PRODUCE.	594,035	243,980	1,213,809	1,303,739	1,646,392
Wool (in Grease).....	378,167	130,041	920,256	857,163	1,259,601
Wool (Scoured).....	36,009	75,760	26,262	54,495	64,100
Hides and Skins (Ox, Cow, and Sheep).....	8,030	27,790	33,991	56,382	53,276
Maize.....	100,628	5,178	62,793	131,537	6,302
Diamonds.....	53,637	—	123,632	149,098	190,260
Bark, Wattle, and Extract...	2,820	2,359	26,750	31,367	40,831

(xii) FRANCE.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 566,624	£ 504,913	£ 860,112	£ 922,155	£ 1,146,966
Wines.....	42,272	35,338	19,934	19,969	22,733
Brandy.....	61,214	49,882	26,372	24,328	25,231
Cotton Manufactures.....	44,592	59,608	89,153	84,745	83,003
Haberdashery and Millinery...	89,479	91,020	168,873	203,327	194,755
Silk Manufactures.....	12,358	26,275	111,323	153,157	195,316
Rubber Tyres.....	*	32,145	96,434	26,712	40,461
Glycerine for Manufacturing Purposes.....	22,148	16,878	21,819	38,684	94,598
Perfumery.....	10,095	19,290	24,374	29,986	25,128
Apparel and Slops.....	15,503	9,048	29,365	41,591	71,226
Tobacconists' Wares.....	23,068	37,521	32,959	35,245	25,162
EXPORTS.					
TOTAL EXPORTS.....	£ 151,433	£ 313,489	£ 1,725,519	£ 2,655,488	£ 2,867,152
SOUTH AFRICAN PRODUCE.	150,553	311,665	1,722,048	2,652,939	2,866,570
Fish (Preserved).....	12,355	54,112	233,305	168,142	159,764
Wool (Scoured and in Grease).	98,751	134,626	1,074,450	1,672,042	1,824,922
Sheep and Goat Skins.....	21,257	3,992	288,632	473,310	649,660
Hides (Ox and Cow).....	2,495	161	59,076	79,780	147,418
Coal (Cargo).....	—	44	—	62,273	—
Wattle Bark.....	2,320	933	16,539	24,031	18,300
Maize.....	137	15,969	9,311	138,516	32,898

* Figures shown with vehicles prior to 1915.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(xiii) GERMANY.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 3,198,248	£ 43,537	£ 2,731,211	£ 2,729,955	£ 3,528,342
Cotton Manufactures.....	307,488	4,019	288,821	214,766	240,169
Haberdashery and Millinery...	218,895	2,473	95,851	121,274	134,000
Implements (including Agricultural Machinery) and Tools..	53,675	1,243	118,877	130,454	161,150
Manufacturing and Mining Machinery.....	127,807	1,386	103,314	130,700	59,284
Fencing Material.....	86,721	2,763	147,357	236,372	442,071
Railway Material (including Locomotives).....	146,107	4,244	57,449	18,853	146,809
Electrical Material and Machinery.....	443,747	1,525	95,953	143,814	139,226
Zinc and Zinc Manufactures...	93,953	371	8,712	364	153
Iron Pipes and Piping.....	94,786	3,921	237,469	57,440	120,243
Hardware and Cutlery, all other	127,729	1,661	182,675	174,201	231,632
Enamelware.....	42,283	329	86,033	73,549	77,696
Earthenware and Chinaware..	32,356	284	102.013	62.595	69,483
Glass and Glassware.....	46,177	910	70,811	81,454	100,188
Cyanide of Sodium.....	219,113	2,941	31,189	22,088	2,706
Musical Instruments.....	101,119	1,612	153,410	267,151	239,027
Toys and Fancy Goods.....	54,065	793	99,847	94,423	82,775
Apparel and Slops.....	68,715	745	59,760	47,981	40,757
Lamps and Lampware.....	15,876	284	23,332	65,997	25,678
Paper of all sorts.....	28,340	166	34,358	68,319	84,580
Aluminium Ware.....	—	61	54,920	37,155	23,562
EXPORTS.					
TOTAL EXPORTS.....	£ 1,747,284	£ —	£ 2,884,652	£ 2,606,568	£ 2,963,964
SOUTH AFRICAN PRODUCE.	1,735,868	—	2,874,948	2,592,299	2,953,400
Wool (in Grease).....	1,328,871	—	1,922,700	1,824,791	2,301,850
Wool (Scoured).....	123,978	—	90,177	184,031	181,759
Maize.....	63,046	—	223,133	132,961	44,278
Feathers (Ostrich).....	46,889	—	3,127	1,087	3,108
Hides and Skins.....	17,959	—	79,871	70,664	123,557
Bark (Wattle) and Extract....	85,882	—	502,312	266,233	201,997
Asbestos.....	8,044	—	19,384	21,792	9,699
Tobacco (Unmanufactured)....	2	—	11,631	22,626	1,526

(xiv) HOLLAND.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 677,820	£ 395,725	£ 438,672	£ 554,025	£ 816,669
Cheese.....	121,395	30,455	8,803	28,221	17,720
Gin.....	17,483	15,713	7,996	8,552	7,746
Food and Drink (N.O.D.).....	153,127	80,328	109,188	120,150	206,450
Cotton Manufactures.....	12,051	116,318	100,024	93,515	99,614
Electrical Material and Machinery.....	2,723	36,789	27,184	35,469	37,383
Stationery and Books.....	16,656	26,741	46,592	53,063	39,127
Manures and Fertilizers.....	50,473	5,730	16,617	62,090	124,716
EXPORTS.					
TOTAL EXPORTS.....	£ 32,209	£ 59,023	£ 789,422	£ 1,883,818	£ 1,587,333
SOUTH AFRICAN PRODUCE.	30,413	52,796	756,423	1,867,671	1,576,262
Diamonds.....	13,577	3,246	230,796	369,532	440,605
Wool (in Grease).....	7,023	5,511	72,974	893,978	812,717
Wool (Scoured).....	—	5,774	1,786	9,256	1,647
Maize.....	472	16,441	78,552	348,380	53,019
Hides and Skins.....	3,313	11,994	15,950	15,421	15,553
Asbestos.....	—	515	4,442	2,016	392
Whale Oil.....	—	—	306,947	174,514	76,537
Wattle Bark.....	10	3,916	19,808	32,252	134,242

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(xv) NORWAY.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			IMPORTS.		
TOTAL IMPORTS.....	£ 273,857	£ 255,320	£ 249,518	£ 332,545	£ 362,182
Fish (Preserved).....	46,984	39,622	50,672	87,965	128,009
Wood (Unmanufactured).....	135,230	92,989	114,017	107,973	92,166
Paper (Manufactured, not Stationery).....	283	1,366	3,863	4,408	3,126
Paper (Printing).....	4,130	35,748	21,609	48,293	28,784
Paper (Wrapping).....	9,676	32,225	14,414	27,306	23,572

(xvi) SWEDEN.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			IMPORTS.		
TOTAL IMPORTS.....	£ 664,525	£ 809,621	£ 929,748	£ 1,146,181	£ 1,306,693
Wood (Unmanufactured).....	420,353	346 504	457,565	584,773	576,712
Wood (Manufactured).....	82,626	122,251	153,513	205,767	230,298
Paper (All).....	33,737	135,809	81,259	115,873	145,514
Telegraph and Telephone Material.....	27,491	10,236	50,788	27,974	33,412
Dairy Utensils.....	15,382	37,854	16,908	16,988	17,958
Bar, Bolt, and Rod (Iron and Steel).....	1,269	31,439	43,730	34,896	22,371

(xvii) SWITZERLAND.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			IMPORTS.		
TOTAL IMPORTS.....	£ 180,840	£ 367,597	£ 517,691	£ 551,534	£ 788,812
Cotton Manufactures.....	21,080	34,813	89,150	112,961	36,440
Haberdashery and Millinery...	82,198	157,297	116,407	139,254	225,041
Boots and Shoes.....	11,195	56,786	81,098	48,852	74,730
Clocks and Watches.....	18,661	42,035	64,488	78,206	76,393
Instruments.....	113	1,204	494	719	315
Confectionery.....	11,414	17,444	36,436	25,838	31,138
Silk Manufactures.....	11,002	12,406	41,051	60,609	75,740
Locomotives.....	—	—	—	—	168,470

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(xviii) UNITED STATES OF AMERICA.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 3,156,210	£ 7,192,637	£ 5,805,094	£ 7,151,473	£ 9,144,176
Wheat.....	7,059	122,398	1,796	11,420	3,423
Food and Drink (N.O.D.).....	271,671	456,536	363,071	444,335	436,120
Cotton Manufactures.....	22,025	291,645	434,149	456,384	506,601
Apparel and Slops.....	31,735	64,419	81,450	65,988	101,833
Boots and Shoes.....	46,076	371,966	44,441	63,781	38,198
Wood (Unmanfactured—Pine and Oak).....	122,193	115,789	193,330	276,267	325,846
Iron and Steel.....	88,904	463,042	80,299	140,158	63,440
Machinery (including Electrical Material and Machinery)....	476,376	831,417	611,533	915,672	1,333,819
Railway Material (including Locomotives).....	39,330	212,538	90,286	13,258	83,290
Motor-cars.....	160,854	467,500	422,159	891,870	1,482,043
Other Vehicles (including Lorries)	58,045	209,558	184,147	262,429	425,316
Implements (including Agricultural Machinery) and Tools..	286,401	368,377	175,598	379,847	585,874
Hardware and Cutlery.....	265,002	356,275	244,950	313,238	289,852
All Mineral Oils.....	473,213	792,305	1,315,395	1,188,431	1,684,031
Paraffin Wax.....	110,700	126,453	85,928	92,466	87,656
Rubber Tyres.....	*	121,660	171,545	113,668	94,316
Drugs, Chemicals, and Apothecary Ware.....	46,527	108,074	71,489	89,740	112,843
Paints and Painters' Goods...	44,769	79,132	83,171	108,899	71,851
Stationery and Books.....	76,609	189,960	99,928	135,735	135,626
Bioscopes and Films.....	†	14,094	57,114	76,682	90,567
Perfumery.....	16,255	60,353	104,501	72,866	58,355
Silk Manufactures.....	644	12,680	146,219	118,029	128,300
EXPORTS.					
TOTAL EXPORTS.....	£ 452,092	£ 5,044,705	£ 1,931,547	£ 1,969,709	£ 1,233,087
SOUTH AFRICAN PRODUCE.	443,352	4,985,254	1,897,397	1,911,938	1,215,191
Wool (in Grease).....	9,830	2,326,011	654,866	832,320	335,207
Wool (Scoured and Washed)...	614	1,284,637	326,053	152,525	204,442
Hides and Skins.....	79,974	794,214	207,955	420,212	222,517
Bark, Wattle, and Extract....	211	41,901	55,657	66,598	45,778
Feathers (Ostrich).....	330,617	201,181	128,777	118,688	80,159
Buchu Leaves.....	9,734	15,665	9,256	20,975	8,150
Mohair.....	624	285,164	387,174	121,182	150,090
Corundum.....	—	2,572	17,566	27,678	10,910
Lucerne Seed.....	‡	‡	3,095	20,094	14,148

* Figures shown with vehicles prior to 1915.
† Figures shown with phonographs and accessories prior to 1915.
‡ Figures shown with N.O.D. prior to 1920.

(xix) BRAZIL.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 585,079	£ 593,010	£ 684,024	£ 741,636	£ 970,985
Coffee (Raw).....	573,634	581,160	672,321	728,510	960,492

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(xx) CHILE.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 220,742	£ 241,496	£ 139,643	£ 234,401	£ 296,224
Nitrates for Manufacturing Purposes.....	217,287	240,266	139,597	234,375	296,184

(xxi) INDIA.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 1,007,331	£ 2,208,137	£ 1,919,936	£ 2,317,217	£ 2,164,171
Rice (including Paddy).....	280,896	326,570	295,567	345,611	369,867
Tea.....	42,366	160,297	212,349	219,241	227,816
Food and Drink (N.O.D.).....	81,538	166,225	117,633	193,387	246,966
Wood (Unmanufactured—Teak)	64,317	63,992	65,915	108,420	99,911
Cotton Manufactures.....	8,091	152,433	47,718	42,528	39,170
Apparel and Slops.....	15,949	35,100	162,784	97,070	122,762
Bags (Coal, Grain, Sugar, and Wool).....	350,733	885,509	740,565	1,001,413	724,235
Wax (Paraffin).....	33,818	164,289	55,365	69,636	118,805
Carpets and Floor Rugs.....	4,038	20,645	52,494	47,628	39,506
Bagging (Jute and Hessian)...	20,277	63,777	50,058	50,579	42,673
EXPORTS.					
TOTAL EXPORTS.....	£ 60,928	£ 70,889	£ 443,107	£ 2,038,893	£ 15,927,771
SOUTH AFRICAN PRODUCE.	58,285	64,533	428,461	2,028,247	15,922,801
Coal (Cargo).....	55,804	28,142	412,920	322,413	237,767
Wattle Bark.....	—	11,317	3,220	3,331	5,462
Sugar.....	—	—	—	—	—
Gold (Raw).....	140	—	—	1,677,957	15,534,882
Coke and Patent Fuel.....	—	—	5,673	18,380	18,416

(xxii) CEYLON.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
IMPORTS.					
TOTAL IMPORTS.....	£ 192,383	£ 223,653	£ 338,790	£ 485,940	£ 575,860
Tea.....	173,400	197,391	298,982	423,040	495,586
Oil, Cocoanut.....	3,497	2,230	17,803	27,867	43,024
EXPORTS.					
TOTAL EXPORTS.....	£ 23,068	£ 97,650	£ 208,241	£ 191,584	£ 223,213
SOUTH AFRICAN PRODUCE.	22,696	97,066	208,216	191,569	223,196
Coal (Cargo).....	21,641	84,090	206,260	189,209	216,960

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES FROM 1910—*continued.*

(xxiii) STRAITS SETTLEMENTS.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			EXPORTS.		
TOTAL EXPORTS.....	£ 170,757	£ 267,446	£ 179,246	£ 357,123	£ 504,929
SOUTH AFRICAN PRODUCE.	167,714	253,082	178,219	356,124	504,796
Tin Ore.....	156,116	228,329	66,557	130,609	190,001
Coal (Cargo).....	11,520	17,981	109,743	215,236	310,250

(xxiv) CHINA.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			IMPORTS.		
TOTAL IMPORTS.....	£ 46,308	£ 91,098	£ 110,748	£ 114,333	£ 104,345
Rice (including Paddy).....	11,894	17,067	35,519	33,934	20,930
Silk Manufactures (Piece Goods)	4,295	22,464	30,373	24,737	17,431

(xxv) JAPAN.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			IMPORTS.		
TOTAL IMPORTS.....	£ 99,678	£ 1,192,669	£ 628,747	£ 525,880	£ 699,650
Silk Manufactures.....	27,238	139,587	307,352	243,550	382,501
Cotton Manufactures.....	24,114	552,471	177,103	120,254	149,510
Glass and Glassware.....	76	33,053	11,778	15,118	13,238
Toys and Fancy Goods.....	5,816	42,213	22,237	21,117	17,953
Wood (Unmanufactured—Oak)	588	13,475	29,364	25,007	18,694
			EXPORTS.		
TOTAL EXPORTS.....	£ 1,041	£ 1,897,471	£ 157,581	£ 79,691	£ 89,409
SOUTH AFRICAN PRODUCE.	46	1,885,144	155,743	66,679	87,875
Wool (in Grease).....	—	1,656,063	101,067	—	22,920
Wool (Scoured).....	—	164,886	10,407	3,695	8,712
Bark (Wattle).....	—	15,677	41,390	46,584	52,574

(xxvi) DUTCH EAST INDIA ISLANDS.

Classification.	Average: 1910–14.	Average: 1915–19.	1922.	1923.	1924.
			IMPORTS.		
TOTAL IMPORTS.....	£ 105,440	£ 292,140	£ 545,376	£ 644,677	£ 561,619
Motor Spirits.....	46,025	235,398	481,304	556,290	419,461
Other Mineral Oils.....	6,045	4,868	16,868	29,127	43,736
Wax (Paraffin).....	60	28,362	903	3,960	2,831
Tea.....	74	3,944	34,669	41,768	39,335

7. Trade Routes through Union Ports.—The following tables give particulars as to the value of oversea trade passing through the various ports of the Union and the percentage in each case of the total value of imports and exports passing through the ports since 1910:—

(i) VALUE OF IMPORTS INTO THE UNION THROUGH VARIOUS PORTS AND ROUTES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Port or Route.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Cape Town	7,151,024	9,617,949	12,337,571	12,398,026	12,621,100	13,937,143
" (Parcel Post)	696,770	1,123,124	1,948,481	2,158,493	2,300,279	2,124,238
Port Elizabeth	8,856,621	8,449,692	10,696,858	11,173,824	12,519,836	13,864,239
East London	4,261,466	3,886,311	6,233,236	4,460,748	5,142,927	6,634,088
Durban	11,354,719	15,464,396	20,273,906	15,230,391	18,962,355	22,381,858
Mossel Bay	461,388	196,258	233,336	304,347	355,688	450,213
Port Nolloth	58,294	33,958	440	30,974	4,255	907
Simonstown	5,742	9,073	18,212	25,295	10,441	13,248
Knysna	33,989	15,319	19,126	35,485	22,744	27,453
Port St. Johns	4	—	—	—	269	305
Other Ports and Routes	21,871	148,611	381,538	133,502	129,790	105,684
From Southern Rhodesia	90,444	371,550	477,825	416,099	619,625	841,274
From Northern Rhodesia	8,112	42,889	48,831	45,879	83,996	110,222
From South West Africa	—	—	—	437,273	559,769	605,953
Via Union Ports	33,000,444	39,359,130	52,669,360	46,850,336	53,333,074	61,096,825
Via Delagoa Bay	4,934,661	2,433,925	5,130,956	4,563,114	4,481,366	4,718,692
TOTAL £	37,935,105	41,793,055	57,800,316	51,413,450	57,814,440	65,815,517

(ii) VALUE OF EXPORTS FROM THE UNION THROUGH VARIOUS PORTS AND ROUTES FROM 1910 (INCLUDING SHIPS' STORES, BUT EXCLUDING SPECIE).

Port or Route.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Cape Town	42,064,806	51,116,211	47,963,493	40,248,732	51,542,879	39,186,702
Port Elizabeth	3,679,766	5,749,513	4,600,885	5,465,630	6,381,047	7,110,843
East London	2,067,275	3,958,172	3,427,562	4,373,631	5,517,642	6,373,915
Durban	4,603,832	6,577,095	9,120,368	7,853,773	10,477,848	24,861,321
Mossel Bay	1,100,609	349,610	217,237	210,645	218,704	244,405
Port Nolloth	377,773	263,507	3,879	29,933	124,906	213,133
Simonstown	8,964	3,925	30,100	64	—	—
Knysna	12,235	4,776	2,378	2,893	4,900	5,164
Port St. Johns	—	—	—	—	—	—
Other Ports and Routes	130,082	891,856	1,174,706	519,694	309,132	152,851
To Southern Rhodesia	1,298,393	1,631,843	2,737,063	2,339,688	2,162,475	1,511,448
To Northern Rhodesia	77,524	108,611	267,645	213,345	211,924	146,191
To South West Africa	—	—	—	813,899	873,055	1,090,896
Ships' Stores	*	2,069,368	3,258,175	2,016,104	2,028,312	2,038,029
Via Union Ports	55,421,259	72,724,487	72,803,491	64,088,031	79,852,824	82,934,898
Via Delagoa Bay	600,848	1,097,863	1,381,685	779,423	1,108,627	1,229,482
TOTAL £	56,022,107	73,822,350	74,185,176†	64,867,454†	80,961,451†	84,164,380†

* Prior to 1916, ships' stores were included with other exports. From 1916, ships' stores cannot be allocated to the various ports.

† Excluding articles through the post not allocated, £168,978 in 1921, £111,070 in 1922, £85,643 in 1923, and £92,592 in 1924.

(iii) PERCENTAGE VALUE OF IMPORTS INTO THE UNION VIA VARIOUS PORTS AND ROUTES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Port or Route.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Cape Town	18·85	23·01	21·35	24·12	21·83	21·18
„ „ (Parcel Post)	1·84	2·69	3·37	4·20	3·98	3·23
Port Elizabeth	23·35	20·22	18·51	21·73	21·65	21·07
East London	11·23	9·30	10·78	8·67	8·89	10·08
Durban	29·93	37·00	35·08	29·62	32·80	34·01
Mossel Bay	1·22	0·47	0·40	0·59	0·61	0·68
Port Nolloth	0·15	0·08	—	0·06	0·01	—
Simonstown	0·02	0·02	0·03	0·05	0·02	0·02
Knysna	0·09	0·04	0·03	0·07	0·04	0·04
Port St. Johns	—	—	—	—	0·01	—
Other Ports and Routes	0·05	0·36	0·66	0·26	0·22	0·16
From Southern Rhodesia	0·24	0·89	0·83	0·81	1·07	1·27
From Northern Rhodesia	0·02	0·10	0·08	0·09	0·15	0·17
From South West Africa	—	—	—	0·85	0·97	0·92
Via Union Ports	86·99	94·18	91·12	91·12	92·25	92·83
Via Delagoa Bay	13·01	5·82	8·88	8·88	7·75	7·17
TOTAL	100·00	100·00	100·00	100·00	100·00	100·00

(iv) PERCENTAGE VALUE OF EXPORTS FROM THE UNION THROUGH VARIOUS PORTS FROM 1910 (INCLUDING SHIPS' STORES, BUT EXCLUDING SPECIE).

Port or Route.	Average: 1910–14.	Average: 1915–19.	1921.	1922.	1923.	1924.
Cape Town	75·09	69·24	64·66	62·05	63·66	46·56
Port Elizabeth	6·57	7·79	6·20	8·43	7·88	8·45
East London	3·69	5·36	4·62	6·74	6·82	7·57
Durban	8·22	8·91	12·30	12·11	12·94	29·54
Mossel Bay	1·96	0·47	0·29	0·32	0·27	0·29
Port Nolloth	0·67	0·35	0·01	0·05	0·15	0·25
Simonstown	0·02	0·01	0·04	—	—	—
Knysna	0·02	0·01	—	—	0·01	0·01
Port St. Johns	—	—	—	—	—	—
Other Ports and Routes	0·23	1·21	1·58	0·80	0·38	0·18
To Southern Rhodesia	2·32	2·21	3·69	3·61	2·67	1·80
To Northern Rhodesia	0·14	0·15	0·36	0·33	0·26	0·17
To South West Africa	—	—	—	1·25	1·08	1·30
Ships' Stores	*	2·80	4·39	3·11	2·51	2·42
Via Union Ports	98·93	98·51	98·14	98·80	98·63	98·54
Via Delagoa Bay	1·07	1·49	1·86	1·20	1·37	1·46
TOTAL	100·00	100·00	100·00†	100·00†	100·00†	100·00†

* Prior to 1916 ships' stores were included with other exports. From 1916 ships' stores cannot be allocated to the various ports.

† Excluding articles through the post not allocated.

8. **Movements of Specie.**—The subjoined tables give particulars as to the imports and exports of specie into and from the Union during a series of years. The information is taken from advices furnished monthly by the banks after comparison with the movements of coin recorded on Customs documents.

(i) VALUE OF IMPORTS OF SPECIE INTO THE UNION FROM VARIOUS COUNTRIES, 1917 TO 1924.

Country.	1917.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£	£
United Kingdom	903,242	1,657,825	4,038,521	326,300	57,087	22	—
Australia	500,000	500,000	64	—	—	—	—
Nyasaland Protectorate	20,000	—	58,200	—	—	—	71,655
Rhodesia, Northern	—	—	1,587	—	—	—	—
Rhodesia, Southern	197	751	288	3,300	245	990	228
Kenya Colony (late B.E.A.)	13	—	—	20	—	—	—
St. Helena	—	—	50	—	2,746	—	—
South West Africa	7,850	2,850	1,293	1,000	29,500	2,000	1,280
Belgium	—	11,164	—	70,401	9,230	—	—
Portuguese East Africa	458,040	154,817	—	—	45,113	19,309	6,101
TOTAL.....£	1,889,342	2,327,407	4,100,003	401,021	143,921	22,321	79,264

(ii) VALUE OF IMPORTS OF CLASSES OF COIN INTO THE UNION FROM VARIOUS COUNTRIES FROM 1912.

Country.	Gold.	Silver.	Copper.	Total.
	£	£	£	£
Total, 1912	858,625	143,765	3,860	1,006,250
Total, 1913	896,550	70,686	1,000	968,236
Total, 1914	970,123	66,067	700	1,036,890
Total, 1915	2,006,016	15,179	1,630	2,022,825
Total, 1916	706,972	75,330	2,734	785,036
Total, 1917	1,476,714	406,755	5,873	1,889,342
Total, 1918	1,722,854	329,769	6,854	2,059,477
Total, 1919	1,967,085	353,697	6,625	2,327,407
Total, 1920	3,541,141	548,282	10,580	4,100,003
Total, 1921	1,000	394,221	5,800	401,021
Total, 1922	36,321	106,387	1,213	143,921
Total, 1923	2,030	20,252	39	22,321
Total, 1924	—	79,231	33	79,264
1924.				
Nyasaland Protectorate	—	71,655	—	71,655
Portuguese East Africa	—	6,068	33	6,101
South West Africa	—	1,280	—	1,280
Southern Rhodesia	—	228	—	228
TOTAL.....£	—	79,231	33	79,264

(iii) VALUE OF EXPORTS OF SPECIE FROM THE UNION TO VARIOUS COUNTRIES, 1917 TO 1924.

Country.	1917.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£	£
United Kingdom	111	61	45	—	21,090	287,234	300
Australia	8,600	—	—	—	—	—	—
Ascension Island	—	370	120	85	—	—	400
Kenya Colony (late B.E.A.)	4,331	1,698	—	20	—	—	—
India	488	82	—	—	—	—	—
Mauritius	400	—	—	—	—	—	—
Rhodesia, Northern	43,170	2,166	4,900	3,525	500	1,620	4,100
Rhodesia, Southern	86,081	36,420	57,575	35,080	9,450	15,770	66,306
South West Africa	8,043	3,910	9,380	235	31,087	8,900	1,112
St. Helena	2,000	—	500	—	—	—	—
Nyasaland Protectorate	—	20	160	—	—	300	145
British West Africa	—	4	—	—	—	—	—
Straits Settlements	—	—	—	—	—	—	—
Belgian Congo	—	—	—	70,401	9,230	—	—
Portuguese East Africa	—	3,515	28,000	6,000	—	—	2,500
United States of America	—	—	123	500	—	—	365
Madagascar	—	—	—	—	—	—	—
China	81	—	—	—	—	—	—
TOTAL £	153,305	48,246	100,803	115,846	72,257	313,824	75,228

(iv) VALUE OF EXPORTS OF CLASSES OF COIN FROM THE UNION TO VARIOUS COUNTRIES FROM 1912.

Country.	Gold.	Silver.	Copper.	Total.
	£	£	£	£
Total, 1912	267 389	31 135	—	298,524
Total, 1913	85,078	5,098	12	90,188
Total, 1914	257,508	32,161	2	289,671
Total, 1915	174,115	20,259	8	194,382
Total, 1916	144,153	42,889	50	187,092
Total, 1917	92,599	60,686	20	153,305
Total, 1918	81,468	141,425	60	222,953
Total, 1919	18,253	29,930	63	48,246
Total, 1920	33,344	67,284	175	100,803
Total, 1921	—	115,841	5	115,846
Total, 1922	—	72,120	137	72,257
Total, 1923	—	313,524	300	313,824
Total, 1924	23,065	52,017	146	75,228
1924.				
United Kingdom	200	100	—	300
Ascension Island	—	400	—	400
Nyasaland Protectorate	—	—	145	145
Portuguese East Africa	2,500	—	—	2,500
United States of America	365	—	—	365
South West Africa	—	1,112	—	1,112
Southern Rhodesia	20,000	46,305	1	66,306
Northern Rhodesia	—	4,100	—	4,100
TOTAL £	23,065	52,017	146	75,228

§ 5. General Features of the External Trade of the Union.

1. **General Conditions of Trade.**—There was a considerable increase both in volume and recorded value of imports, and a slight increase in the recorded value, but a decrease in the volume of exports as compared with 1923.

Imports, at an average price of about 72 per cent. above those prevailing before the war, were of greater volume than in any year since 1911. The chief increases were due to railway

material, motor-cars, electrical goods, and oils. Large increases occurred in goods for the farming community, such as agricultural implements, machinery, fencing material, and fertilizers.

The recorded value of exports of gold, coal, tin, wool, mohair, hides, skins, and beef increased, but a fall of over £2,500,000 in the export value of maize took place. There was also a considerable decrease in the export of sugar, bark, asbestos, and copper.

2. **Vessels Entered at Union Ports.**—There was an increase during 1923 in the number and total tonnage of vessels entered at Union ports and in the tonnage of cargo shipped, but an increase in the tonnage of cargo landed. The chief decrease occurred in the tonnage of British vessels, but there were also decreases in the tonnage of German and Italian ships. The chief increases were of ships of Portuguese, Swedish, Dutch, and Finnish register.

NUMBER AND TONNAGE OF OVERSEA VESSELS ENTERED AT UNION HARBOURS (SHOWING NATIONALITIES) AND TONNAGE OF CARGO LANDED AND SHIPPED, 1923 AND 1924.

Nationality.	No. of Vessels.		Tonnage of Vessels.		Cargo Landed.		Cargo Shipped.*	
	1923.	1924.	1923.	1924.	1923.	1924.	1923.	1924.
			Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
British	1,057	964	4,117,010	3,866,020	1,471,181	1,778,660	3,413,843	3,194,192
American	27	28	94,774	97,951	50,477	56,272	61,340	71,001
Belgian	2	1	3,730	1,652	2,119	—	694	2,481
Brazilian	—	—	—	—	—	—	—	—
Chinese	—	—	—	—	—	—	—	—
Danish	18	14	42,381	41,852	40,247	24,156	50,216	33,008
Dutch	67	68	253,336	264,733	82,379	138,855	345,622	212,679
Finnish	—	7	—	15,867	—	20,172	—	13,414
French	7	6	9,432	15,168	1,953	499	7,472	7,067
German	67	64	261,014	250,656	121,247	143,119	169,323	139,435
Greek	2	2	6,381	6,356	—	—	10,226	2,023
Italian	9	6	26,301	14,530	515	1,802	30,395	4,671
Japanese	25	27	89,517	97,641	61,925	52,142	63,344	61,923
Norwegian	31	34	78,356	86,689	64,952	52,187	79,014	63,917
Panama	1	—	3,541	—	—	—	1,334	—
Portuguese	17	31	61,421	111,911	2,077	1,127	7,041	10,756
Russian	1	—	1,983	—	4,024	—	—	—
Swedish	34	41	88,018	109,269	83,011	99,327	82,431	108,962
TOTAL	1,365	1,293	5,137,195	4,980,295	1,986,107	2,368,318	4,322,295	3,925,559
	%	%	%	%	%	%	%	%
British	77·44	74·55	80·14	77·63	74·07	75·10	78·98	81·37
American	1·98	2·17	1·84	1·97	2·54	2·38	1·42	1·81
Danish	1·32	1·08	0·82	0·84	2·03	1·02	1·16	0·84
Dutch	4·91	5·26	4·93	5·32	4·15	5·86	8·00	5·42
German	4·91	4·95	5·08	5·03	6·11	6·04	3·92	3·55
Japanese	1·83	2·09	1·74	1·96	3·12	2·20	1·46	1·58
Norwegian	2·27	2·63	1·53	1·74	3·27	2·20	1·83	1·63
Portuguese	1·24	2·40	1·20	2·25	0·10	0·05	0·16	0·27
Swedish	2·49	3·17	1·72	2·19	4·18	4·20	1·91	2·77
Other Foreign	1·61	1·70	1·00	1·07	0·43	0·95	1·16	0·76

* Including bunker coal.

NOTE.—In 1913 the figures for the number and tonnage of vessels entered were :—British—number 1,179 ; tonnage, 4,238,805. German—number, 230 ; tonnage, 723,458. All Foreign—number, 428 ; tonnage 1,114,989. Four Japanese vessels entered, with a tonnage of 13,903 ; no cargo landed or shipped.

3. **Decreases in Imports of Various Food-stuffs.**—The following table showing the extent to which certain articles of food were imported during the years before the war

and in subsequent years, gives reason for assuming a corresponding increase in the production of such articles in the Union during the later years :—

IMPORTS OF VARIOUS ARTICLES OF FOOD FROM 1910.

(INCLUDING IMPORTS FOR GOVERNMENT AND IMPORTS FROM RHODESIA AND SOUTH-WEST AFRICA.)

Year.	Cheese.	Eggs.	Frozen Beef.	Frozen Mutton.	Sugar.	Jams.	Fish.	Butter.
	1,000 lb.	Value, £.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Average :								
1910–14.....	5,129	62,772	5,987	2,356	55,318	1,986	10,172	4,097
1915–19.....	1,478	3,887	9	41	19,465	505	5,405	1,053
Year:								
1920.....	1,213	143	92	1,974	29	2,036	15,705	685
1921.....	60	38	20	3	25,291	251	5,918	447
1922.....	274	3,776	61	239	35,832	424	9,347	532
1923.....	849	4,115	37	89	5,952	459	13,295	1,685
1924.....	607	4,913	12	52	1,078	341	14,247	2,707

4. **Exports of Staple Commodities in 1924.**—(i) *Coal.*—There was a small increase in the export of coal over 1923, the previous record. This was chiefly owing to the great increase in the demand of the Soudan, which among customers was fifth in order of magnitude. The coal bunkered at the ports also increased slightly. Of the total traffic Durban accounted for approximately 67 per cent., Cape Town 18½ per cent., and Lourenco Marques 13½ per cent.

(ii) *Diamonds.*—Although fewer diamonds were exported, the price per carat was higher than in 1923, and the decrease in the total value of exports was less than £74,000.

(iii) *Ostrich Feathers.*—There was a slight decrease in quantity, but a slight increase in the value of ostrich feathers exported in 1923.

(iv) *Mohair.*—There was a decrease in exports of mohair of over 1,000,000 lb, but an increase of the total value of nearly £200,000.

(v) *Hides and Skins.*—Exports of hides were 48 per cent. greater than in 1913, the previous record, and in value were £373,000 higher than in 1923. Although exports of skins decreased in volume, the total value increased owing to higher prices.

(vi) *Maize.*—The export of maize was the smallest since 1920, amounting to little over 70,000 tons. This was owing to the drought, which left little exportable surplus.

(vii) *Meats.*—The export of meats, amounting to 4,372 tons, was the largest since 1920 This was entirely due to the export of 4,296 tons of beef to Italy.

(viii) *Wool.*—There was an increase both in the quantity of wool exported and in the price realized, so that the total value of the export amounted to nearly £16,000,000 greater than in any year, except the boom years of 1919 and 1920.

5. **Principal Exports since 1909.**—The succeeding tables give comparisons in respect of some of the principal articles of South African produce, showing in each case the quantity exported, the recorded value, the value assessed at the 1909 price, the value assessed at the previous year's price, showing gain or loss, together with an index number calculated upon the average price for the years 1909 to 1913 (= 1000).

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE EACH YEAR SINCE 1909—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS.

(Excluding Removals to Rhodesia and, from 1922, South-West Africa and, from 1916, Ships' Stores.)

(i) COAL (CARGO).

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 = 1000.)
	Tons.	£	£	£	£	£	Per ton. s. d.	
1909...	330,941	171,554	—	—	—	—	10 4·4	1130
1910...	138,461	56,170	71,776	71,776	− 15,606	− 15,606	8 1·4	884
1911...	82,536	51,276	42,785	33,483	3,491	17,793	12 5·1	1354
1912...	166,922	106,157	86,529	103,701	19,628	2,456	12 8·6	1386
1913...	856,031	337,457	443,751	544,408	−106,294	−206,951	7 10·6	859
1914...	651,210	236,008	337,576	256,714	−101,568	− 20,706	7 3	790
1915...	506,539	213,608	262,581	183,577	− 48,973	30,031	8 5·5	919
1916...	565,636	322,255	293,216	238,529	29,039	83,726	11 4·7	1242
1917...	538,679	320,801	279,242	306,897	41,559	13,904	11 10·9	1298
1918...	1,208,386	1,033,064	626,406	719,633	406,658	313,431	17 1·2	1863
1919...	1,092,010	928,772	566,079	933,573	362,693	− 4,801	17 0·1	1854
1920...	1,301,272	1,482,862	674,557	1,106,753	808,305	376,109	22 9·5	2484
1921...	1,795,093	1,949,014	930,545	2,045,595	1,018,469	− 96,581	21 8·6	2366
1922...	1,477,654	1,061,350	765,990	1,604,356	295,360	− 543,006	14 4·4	1565
1923...	1,903,717	1,190,688	986,853	1,367,377	203,835	− 176,689	12 6·1	1363
1924...	1,921,977	1,211,580	996,329	1,202,121	215,251	9,459	12 7·1	1374
1925...	1,757,847	1,071,393	911,237	1,108,115	160,156	− 36,722	12 2·2	1328

(ii) COAL (BUNKER).

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 = 1000.)
	Tons.	£	£	£	£	£	Per ton. s. d.	
1909...	895,608	644,207	—	—	—	—	14 4·6	992
1910...	1,326,709	929,881	954,296	954,296	− 24,415	− 24,415	14 0·2	967
1911...	1,426,586	1,027,731	1,026,137	999,884	1,594	27,847	14 4·9	994
1912...	1,413,220	1,067,663	1,016,523	1,018,102	51,140	49,561	15 1·3	1042
1913...	1,451,751	1,052,241	1,044,238	1,096,773	8,003	− 44,532	14 6	1000
1914...	1,343,240	1,000,521	966,180	973,591	34,341	26,930	14 10·8	1028
1915...	1,296,891	916,210	932,848	965,998	− 16,638	49,788	14 1·6	975
1916...	2,164,262	1,988,926	1,556,744	1,528,979	432,182	459,947	18 4·6	1268
1917...	2,347,435	2,713,206	1,688,500	2,157,259	1,024,706	555,947	23 1·4	1595
1918...	1,276,333	1,906,314	918,061	1,475,208	988,253	431,106	29 10·5	2060
1919...	1,427,380	2,277,733	1,026,708	2,131,916	1,251,025	145,817	31 11	2201
1920...	1,852,663	3,635,949	1,332,613	2,956,376	2,303,336	679,573	39 3	2707
1921...	1,636,445	3,201,449	1,177,088	3,211,610	2,024,361	− 10,161	39 1·5	2699
1922...	1,429,869	1,944,640	1,028,499	2,797,315	916,141	− 852,675	27 2·4	1876
1923...	1,807,971	2,095,082	1,300,466	2,458,862	794,616	− 363,780	23 2·1	1599
1924...	1,816,021	2,091,318	1,306,256	2,104,410	785,062	− 13,092	23 0·4	1589
1925...	1,963,207	2,243,190	1,412,126	2,260,816	831,064	− 17,626	22 10·2	1576

(iii) DIAMONDS.

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 = 1000.)
	Carats.	£	£	£	£	£	Per carat. s. d.	
1909...	4,942,568	6,368,711	—	—	—	—	25 9·3	732
1910...	5,586,625	8,479,346	7,197,111	7,197,111	1,282,235	1,282,235	30 4·3	862
1911...	4,690,889	8,281,907	6,044,401	7,119,803	2,237,506	1,162,104	35 3·7	1003
1912...	4,442,746	9,153,316	5,724,669	7,843,803	3,428,647	1,309,513	41 2·5	1170
1913...	5,503,861	12,016,525	7,091,961	11,339,513	4,924,564	677,012	43 8	1240
1914...	2,880,332	5,512,919	3,711,431	6,288,600	1,801,488	−775,681	38 3·4	1087
1915...	612,876	1,676,138	789,717	1,173,037	886,421	503,101	54 8·4	1554
1916...	2,291,056	5,279,976	2,952,124	6,265,747	2,327,852	−985,771	46 1·1	1309
1917...	2,403,626	6,097,006	3,097,175	5,539,405	2,999,831	557,601	50 8·8	1441
1918...	2,571,646	7,063,043	3,313,676	6,523,203	3,749,367	539,840	54 11·2	1560
1919...	2,752,303	11,546,768	3,546,460	7,559,219	8,000,308	3,987,549	83 10·9	2383
1920...	2,039,554	11,597,451	2,628,053	8,556,563	8,969,398	3,040,888	113 8·7	3230
1921...	316,702	1,355,487	408,084	1,800,852	947,403	−445,365	85 7·2	2431
1922...	1,330,664	4,386,554	1,714,618	5,695,252	2,671,936	−1,308,698	65 11·2	1873
1923...	2,428,849	7,207,087	3,129,676	8,006,737	4,077,411	−799,651	59 4·1	1686
1924...	2,199,477	7,133,370	2,834,120	6,526,475	4,299,250	606,895	64 10·3	1842
1925...	2,591,239	8,605,525	3,338,923	8,403,937	5,266,602	201,588	66 5·0	1887

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE EACH YEAR SINCE 1909—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS—*continued.*

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 =1000.)
				(iv) OSTRICH FEATHERS.				
	lb.	£	£	£	£	£	Per lb. s. d.	
1909...	788,262	2,091,280	—	—	—	—	53 0·7	954
1910...	741,078	2,272,846	1,966,020	1,966,020	306,826	306,826	61 4·1	1103
1911...	826,992	2,253,140	2,194,032	2,536,340	59,108	−283,200	54 5·9	980
1912...	999,704	2,609,638	2,652,241	2,723,694	− 42,603	−114,056	52 2·5	939
1913...	1,023,307	2,953,587	2,714,861	2,678,389	238,726	275,198	57 8·7	1038
1914...	755,325	1,342,717	200,389	2,180,106	1,142,328	−837,389	35 6·6	639
1915...	948,945	743,772	2,517,576	1,686,909	−1,773,804	−943,137	15 8·1	282
1916...	452,080	486,362	1,118,884	354,335	−632,522	132,027	21 6·2	387
1917...	219,048	175,019	581,140	235,659	−406,121	− 60,640	15 11·8	287
1918...	108,924	88,628	288,978	87,030	−200,350	1,598	16 3·3	293
1919...	904,611	1,646,014	2,399,957	736,053	−753,943	909,961	36 4·7	654
1920...	285,144	547,336	756,494	518,843	−209,158	28,493	38 4·7	690
1921...	296,711	461,533	787,182	569,539	−325,649	−108,006	31 1·3	559
1922...	303,692	393,919	805,703	472,392	−411,784	− 78,473	25 11·3	466
1923...	384,883	339,903	1,021,105	499,232	−681,202	−159,329	17 7·9	318
1924...	384,003	353,162	1,018,770	339,126	−665,608	14,036	18 4·6	331
1925...	269,528	203,976	715,065	247,881	−511,089	− 43,905	14 1·6	272
				(v) MOHAIR.				
	lb.	£	£	£	£	£	Per lb. s. d.	
1909...	19,649,053	861,639	—	—	—	—	0 10·5	963
1910...	17,817,219	903,164	781,310	781,310	121,854	121,854	1 0·2	1118
1911...	21,066,825	917,874	923,810	1,067,888	− 5,936	−150,014	0 10·5	957
1912...	23,479,729	967,286	1,029,620	1,022,189	− 62,334	− 54,903	0 9·9	904
1913...	17,355,882	876,255	761,080	715,004	115,175	161,251	1 0·1	1103
1914...	18,865,743	834,202	827,290	952,484	6,912	−118,282	0 10·6	971
1915...	16,304,378	687,635	714,970	720,944	− 27,335	− 33,309	0 10·1	926
1916...	17,374,068	1,115,281	761,878	732,749	353,403	382,532	1 3·4	1409
1917...	3,690,828	280,636	161,848	236,923	118,788	43,713	1 6·2	1669
1918...	19,645,684	1,641,889	861,491	1,493,780	780,398	148,109	1 8·1	1835
1919...	16,942,021	1,654,235	742,932	1,415,930	911,303	238,305	1 11·4	2144
1920...	6,289,888	518,973	275,821	614,150	243,152	− 95,177	1 7·8	1811
1921...	17,128,915	583,643	751,127	1,413,291	−167,484	−829,648	0 8·2	748
1922...	25,792,749	1,152,470	1,131,049	878,852	21,421	273,618	0 10·7	981
1923...	14,987,851	947,883	657,239	669,686	290,644	278,197	1 3·2	1388
1924...	13,666,125	1,142,012	599,279	864,292	542,733	277,720	1 7·8	1835
1925...	11,560,405	836,328	506,940	966,046	329,388	−129,718	1 5·4	1588
				(vi) HIDES (OX AND COW).				
	lb.	£	£	£	£	£	Per lb. s. d.	
1909...	11,770,489	315,150	—	—	—	—	0 6·4	856
1910...	13,255,332	404,073	354,906	354,906	39,756	39,756	0 7·3	974
1911...	13,211,734	370,548	352,800	402,744	17,748	− 32,196	0 6·7	897
1912...	20,428,461	670,887	545,512	572,955	125,375	97,932	0 7·9	1050
1913...	21,279,840	794,937	568,247	698,847	226,690	96,090	0 9	1194
1914...	14,673,065	544,050	391,823	548,132	152,227	− 4,082	0 8·9	1185
1915...	15,304,911	575,945	408,695	567,478	167,250	8,467	0 9	1203
1916...	19,450,001	811,338	519,384	731,931	291,954	79,407	0 10	1333
1917...	17,304,022	836,505	462,079	721,820	374,426	114,685	0 11·6	1545
1918...	12,506,970	548,051	333,980	604,608	214,071	− 56,557	0 10·5	1401
1919...	19,586,819	1,068,053	523,038	858,288	545,015	209,765	1 1·1	1743
1920...	18,862,413	1,182,317	503,693	1,028,552	678,624	153,765	1 3	2004
1921...	14,295,679	362,269	382,761	896,069	− 20,492	− 533,800	0 6·1	810
1922...	18,035,228	476,391	482,886	457,033	− 6,495	19,358	0 6·3	844
1923...	20,768,272	599,309	556,062	548,583	43,247	50,726	0 6·9	922
1924...	31,439,719	972,723	841,786	907,254	130,937	65,469	0 7·2	989
1925...	26,908,454	911,733	720,463	832,529	191,270	79,204	0 8·1	1083

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE EACH YEAR SINCE 1909—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS—*continued.*

(vii) SHEEP SKINS.

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. 1909–13 =1000.)
	lb.	£	£	£	£	£	Per lb. s. d.	
1909...	23,746,655	551,910	—	—	—	—	0 5·6	929
1910...	24,630,435	603,280	572,450	572,450	30,830	30,830	0 5·9	979
1911...	23,996,966	574,457	557,728	587,764	16,729	− 13,307	0 5·7	957
1912...	29,029,147	724,196	674,684	694,921	49,512	29,275	0 6	997
1913...	32,196,400	889,611	748,296	803,210	141,315	86,401	0 6·6	1104
1914...	30,353,731	753,273	705,469	838,697	47,804	− 85,424	0 6	992
1915...	37,226,422	827,590	865,201	923,829	− 37,611	− 96,239	0 5·3	888
1916...	30,410,386	1,084,042	706,786	676,061	377,256	407,981	0 8·6	1424
1917...	24,941,141	1,431,854	579,672	889,079	852,182	542,775	1 1·8	2294
1918...	25,284,318	1,329,236	587,648	1,451,556	741,588	−122,320	1 0·6	2101
1919...	39,775,368	2,827,053	924,442	2,091,052	1,902,611	736,001	1 5·1	2840
1920...	24,066,098	2,141,027	559,334	1,710,510	1,581,693	430,517	1 9·4	3555
1921...	27,949,822	713,341	649,598	2,486,539	63,743	−1,773,198	0 6·1	1020
1922...	38,989,200	1,237,828	906,171	995,090	331,657	242,738	0 7·6	1269
1923...	32,096,340	1,592,952	745,970	1,018,994	846,982	573,958	0 11·9	1983
1924...	29,527,431	1,857,179	686,264	1,465,456	1,170,915	391,723	1 3·9	2513
1925...	28,218,699	1,566,739	655,847	1,774,864	910,892	− 208,125	1 1·3	2219

(viii) MAIZE.

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. 1909–13 =1000.)
	lb.	£	£	£	£	£	Per 200 lb. s. d.	
1909...	302,102,606	650,940	—	—	—	—	8 7·4	1032
1910...	356,303,905	693,413	767,727	767,727	− 74,314	− 74,314	7 9·4	932
1911...	206,554,439	402,680	445,062	401,981	− 42,382	699	7 9·6	934
1912...	192,775,746	443,492	415,373	375,818	28,119	67,674	9 2·4	1102
1913...	22,944,744	65,169	49,439	52,785	15,730	12,384	11 4·3	1361
1914...	220,031,205	438,455	474,019	62,494	− 35,564	375,961	7 11·6	955
1915...	298,765,234	631,646	643,749	595,347	− 12,103	36,299	8 5·5	1013
1916...	349,205,982	877,368	752,433	738,287	124,935	139,081	10 0·6	1204
1917...	468,702,325	1,519,860	1,009,912	1,177,519	509,948	342,341	12 11·6	1554
1918...	509,495,794	1,600,137	1,097,809	1,652,140	502,328	− 52,003	12 6·8	1505
1919...	246,265,197	1,145,408	530,619	773,427	614,789	371,981	18 7·3	2228
1920...	69,675,591	344,268	150,130	324,069	194,138	20,199	19 9·2	2367
1921...	777,246,032	2,295,769	1,674,730	3,840,383	621,039	−1,544,614	11 9·8	1415
1922...	544,179,967	1,426,376	1,172,543	1,607,356	253,833	− 180,980	10 5·8	1256
1923...	1,128,314,250	3,084,334	2,431,176	2,957,479	653,158	126,855	10 11·2	1310
1924...	143,896,566	492,001	310,054	393,352	181,947	98,649	13 7·8	1638
1925...	1,859,640,627	5,669,405	4,006,964	6,358,351	1,662,441	− 688,946	12 2·3	1461

(ix) MEATS.

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. 1909–13 =1000.)
	lb.	£	£	£	£	£	Per lb. s. d.	
1909...	29,589	637	—	—	—	—	0 5·2	894
1910...	15,762	461	339	339	122	122	0 7	1214
1911...	322,308	7,249	6,939	9,427	310	− 2,178	0 5·4	934
1912...	502,336	11,533	10,814	11,297	719	236	0 5·5	953
1913...	198,683	5,858	4,277	4,562	1,581	1,296	0 7·1	1224
1914...	640,353	15,104	13,786	18,880	1,318	− 3,766	0 5·7	979
1915...	6,412,037	118,132	138,040	151,241	− 19,908	− 33,109	0 4·4	765
1916...	17,861,042	361,768	384,517	329,062	− 22,749	32,706	0 4·9	841
1917...	47,350,476	1,049,483	1,019,374	959,064	30,059	90,059	0 5·3	920
1918...	18,818,409	477,418	405,128	417,074	72,290	60,344	0 6·1	1053
1919...	46,018,654	1,170,973	990,701	1,167,480	180,272	3,493	0 6·1	1057
1920...	13,609,039	381,277	292,979	346,290	88,298	34,987	0 6·7	1163
1921...	2,756,629	93,513	59,345	77,231	34,168	16,282	0 8·1	1409
1922...	1,180,879	30,352	25,422	40,059	4,930	− 9,707	0 6·2	1067
1923...	817,466	15,629	17,599	21,011	− 1,970	− 5,382	0 4·6	794
1924...	8,744,951	103,618	188,264	167,193	− 84,646	− 63,575	0 2·9	492
1925...	28,226,181	305,222	500,019	275,204	− 194,797	30,018	0 3·2	546

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE EACH YEAR SINCE 1909—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS—*continued.*

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 = 1000.)
				(x) WOOL, SCOURED.				
	1,000 lb.	£	£	£	£	£	Per lb. s. d.	
1909...	4,103	218,847	—	—	—	—	1 0·8	879
1910...	4,208	255,658	224,468	224,468	31,190	31,190	1 2·6	1001
1911...	5,284	304,686	281,823	320,982	22,863	− 16,296	1 1·8	950
1912...	4,164	250,645	222,115	240,134	28,530	10,511	1 2·4	992
1913...	3,658	269,932	195,122	220,185	74,810	49,747	1 5·7	1216
1914...	4,323	328,073	230,589	318,997	97,484	9,076	1 6·2	1250
1915...	8,663	618,903	462,051	657,388	156,852	− 38,485	1 5·1	1177
1916...	10,297	1,003,696	549,230	735,677	454,466	268,019	1 11·4	1606
1917...	11,936	1,804,647	636,628	1,163,422	1,168,019	641,225	3 0·3	2491
1918...	15,243	2,792,124	813,016	2,304,652	1,979,108	487,472	3 8	3018
1919...	26,477	4,939,543	1,412,209	4,849,922	3,527,334	89,621	3 8·8	3074
1920...	12,988	2,964,959	692,733	2,423,001	2,272,226	541,958	4 6·8	3762
1921...	11,527	1,026,200	614,833	2,631,539	411,367	−1,605,339	1 9·4	1467
1922...	11,215	1,134,219	598,172	998,393	536,047	135,826	2 0·3	1667
1923...	8,666	1,213,553	462,201	876,399	751,352	337,154	2 9·6	2308
1924...	8,554	1,534,761	456,236	1,197,891	1,078,525	336,870	3 6·8	2957
1925...	7,948	1,207,207	423,915	1,425,034	783,292	− 218,827	3 0·5	2503
				(xi) WOOL IN THE GREASE.				
	1,000 lb.	£	£	£	£	£	Per lb. s. d.	
1909...	126,660	3,502,089	—	—	—	—	0 6·6	940
1910...	117,445	3,574,521	3,247,320	3,247,320	327,201	327,201	0 7·3	1035
1911...	126,894	3,592,878	3,508,556	3,862,082	84,322	− 269,204	0 6·8	963
1912...	157,761	4,527,099	4,362,042	4,466,874	165,057	60,225	0 6·9	976
1913...	173,243	5,444,524	4,790,093	4,971,357	654,431	473,167	0 7·5	1069
1914...	129,524	3,900,557	3,581,281	4,070,557	319,276	− 170,000	0 7·2	1024
1915...	161,253	4,753,202	4,458,585	4,856,074	294,617	− 102,872	0 7·1	1003
1916...	125,895	5,583,971	3,480,939	3,710,961	2,103,032	1,873,010	0 10·6	1508
1917...	105,710	6,977,065	2,922,336	4,688,688	4,054,229	2,288,377	1 3·8	2245
1918...	100,392	6,897,506	2,775,788	6,626,048	4,121,718	271,458	1 4·5	2337
1919...	158,263	12,946,170	4,375,914	10,873,632	8,570,256	2,072,538	1 7·6	2782
1920...	106,396	12,990,055	2,941,794	8,703,315	10,048,261	4,286,740	2 5·3	4152
1921...	218,893	7,210,485	6,052,310	26,725,134	1,158,175	−19,514,649	0 7·9	1120
1922...	198,568	9,866,723	5,490,333	6,540,968	4,376,390	3,325,755	0 11·9	1690
1923...	155,735	11,160,188	4,306,020	7,738,384	6,854,168	3,421,804	1 5·2	2437
1924...	166,041	14,229,192	4,590,978	11,898,729	9,638,214	2,330,463	1 8·4	2915
1925...	200,668	13,888,239	5,548,392	17,196,571	8,339,847	−3,308,332	1 4·6	2354

6. **Variation of Export Values.**—The following tables show the variation of the values of exports, divided into four categories: (i) living animals, (ii) produce of the land, (iii) produce of the mines (excluding gold), and (iv) other articles. Table (v) is a summary of the preceding four. Table (vi) is similarly a summary of the first four tables with the addition of gold. In this table the exports of gold during the period 1914 to 1919 have been re-arranged in proportion to the output. As the gold during the greater part of this period was sold to the Bank of England as soon as it was lodged with South African banks, this re-arrangement gives a closer approximation to the Union's purchasing power, as far as visible exports are concerned, for individual years than the recorded export figures. The second column in the tables shows the recorded values of exports, the third the values at the average (1909–13) prices. The two last columns show the index numbers (1) of the value of exports, and (2) of the export values. About 98 per cent. of the exports are shown by quantities as well as values in the annual statements of the Customs Department. In the case of the remaining 2 per cent., where values only are recorded, changes of value have been applied proportional to the other articles in their appropriate class.

VARIATIONS IN VOLUME AND VALUE OF EXPORTS (S.A. PRODUCE) FROM 1909.

(Including Ships' Stores but excluding Removals to Rhodesia, and from 1922, South West Africa.)

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Export (Average 1909–13 = 1000).	Index No. of Export Values (Average 1909–13 = 1000).
			Gain.	Loss.		
		(i) ANIMALS, LIVING.				
	£	£	£	£		
1909.....	43,366	43,982	—	616	1103	986
1910.....	42,362	37,857	4,505	—	949	1119
1911.....	45,338	49,713	—	4,325	1247	912
1912.....	30,988	33,001	—	2,013	828	939
1913.....	38,106	34,800	3,306	—	873	1095
1914.....	33,568	36,646	—	3,078	919	916
1915.....	44,465	56,499	—	12,034	1417	787
1916.....	32,797	42,984	—	10,187	1078	763
1917.....	47,452	55,958	—	8,506	1403	848
1918.....	60,763	66,699	—	5,936	1673	911
1919.....	53,704	54,522	—	818	1367	985
1920.....	68,360	61,090	7,270	—	1532	1119
1921.....	54,142	55,587	—	1,445	1394	974
1922.....	40,932	42,241	—	1,309	1059	969
1923.....	32,375	30,629	1,746	—	768	1057
1924.....	29,037	31,459	—	2,422	789	923
1925.....	42,805	42,131	674	—	1057	1016
		(ii) PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL.				
	£	£	£	£		
1909.....	8,958,090	9,459,440	—	501,350	926	947
1910.....	9,484,687	9,119,891	364,796	—	893	1040
1911.....	9,246,134	9,522,280	—	276,146	932	971
1912.....	11,163,506	11,485,088	—	321,582	1124	972
1913.....	12,239,524	11,492,511	747,013	—	1125	1065
1914.....	9,090,642	9,691,516	—	600,874	949	938
1915.....	9,930,016	11,737,608	—	1,807,592	1149	846
1916.....	12,915,537	10,106,054	2,809,483	—	989	1278
1917.....	16,291,187	9,147,213	7,143,974	—	895	1781
1918.....	18,192,359	9,141,889	9,050,470	—	895	1990
1919.....	33,064,453	15,343,134	17,721,319	—	1502	2155
1920.....	25,623,600	8,295,112	17,328,588	—	812	3089
1921.....	17,899,393	14,780,671	3,118,722	—	1447	1211
1922.....	19,395,065	14,334,860	5,060,205	—	1403	1353
1923.....	22,613,179	13,492,350	9,120,829	—	1321	1676
1924.....	23,911,332	11,825,584	12,085,748	—	1158	2022
1925.....	29,838,075	17,781,928	12,056,147	—	1741	1678
		(iii) PRODUCE OF MINES, EXCLUDING GOLD.				
	£	£	£	£		
1909.....	7,858,377	10,218,956	—	2,360,579	953	769
1910.....	10,205,006	11,623,013	—	1,418,007	1084	878
1911.....	10,236,625	10,403,074	—	166,449	970	984
1912.....	11,052,334	9,544,330	1,508,004	—	890	1158
1913.....	14,267,156	11,839,963	2,427,193	—	1104	1205
1914.....	7,931,155	7,475,170	455,985	—	697	1061
1915.....	3,944,213	3,311,682	632,531	—	309	1191
1916.....	8,893,056	6,726,971	2,166,085	—	627	1322
1917.....	10,509,613	6,960,009	3,549,604	—	649	1510
1918.....	10,731,646	6,433,841	4,297,805	—	600	1668
1919.....	15,325,200	6,736,352	8,588,848	—	628	2275
1920.....	17,506,537	6,091,349	11,415,188	—	568	2874
1921.....	6,797,566	2,798,504	3,999,062	—	261	2429
1922.....	7,757,177	4,372,704	3,384,473	—	408	1774
1923.....	11,253,576	7,095,571	4,158,005	—	662	1586
1924.....	11,111,982	6,606,410	4,505,572	—	616	1682
1925.....	12,552,613	7,264,244	5,288,369	—	677	1728

VARIATIONS IN VOLUME AND VALUE OF EXPORTS (S.A. PRODUCE), FROM 1909—*continued.*

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Export (Average 1909–13 = 1000).	Index No. of Export Values (Average 1909–13 = 1000).
			Gain.	Loss.		
			(iv) OTHER ARTICLES.			
	£	£	£	£		
1909.....	169,720	165,258	4,462	—	530	1027
1910.....	240,589	223,596	16,993	—	717	1076
1911.....	314,772	322,182	—	7,410	1033	977
1912.....	407,227	421,124	—	13,897	1350	967
1913.....	430,354	427,362	2,992	—	1370	1007
1914.....	360,561	356,638	3,923	—	1143	1011
1915.....	562,012	509,069	52,943	—	1632	1104
1916.....	1,108,516	863,330	245,186	—	2768	1284
1917.....	1,267,942	858,458	409,484	—	2752	1477
1918.....	1,309,652	774,484	535,168	—	2483	1691
1919.....	1,406,701	764,096	642,605	—	2450	1841
1920.....	1,736,636	858,022	878,614	—	2751	2024
1921.....	1,072,288	555,302	516,986	—	1780	1931
1922.....	1,336,782	697,694	639,088	—	2237	1916
1923.....	1,237,720	688,770	548,950	—	2208	1797
1924.....	1,424,242	734,903	689,339	—	2356	1938
1925.....	1,596,809	836,026	760,783	—	2680	1910
			(v) SUMMARY OF TABLES (i) TO (iv).			
	£	£	£	£		
1909.....	17,029,553	19,887,636	—	2,858,083	934	856
1910.....	19,972,644	21,004,357	—	1,031,713	986	951
1911.....	19,842,919	20,297,249	—	454,330	953	978
1912.....	22,654,055	21,483,543	1,170,512	—	1009	1054
1913.....	26,975,140	23,794,636	3,180,504	—	1117	1134
1914.....	17,415,926	17,559,970	—	144,044	825	992
1915.....	14,480,706	15,614,858	—	1,134,152	733	927
1916.....	22,949,906	17,739,339	5,210,567	—	833	1294
1917.....	28 116,194	17,021,638	11,094,556	—	799	1652
1918.....	30,294,420	16,416,913	13,877,507	—	771	1845
1919.....	49,850,058	22,898,104	26,951,954	—	1075	2177
1920.....	44,935,133	15,305,573	29,629,560	—	719	2936
1921.....	25,823,389	18,190,064	7,633,325	—	854	1420
1922.....	28,529,956	19,447,499	9,082,457	—	913	1467
1923.....	35,136,850	21,307,320	13,829,530	—	1001	1649
1924.....	36,476,593	19,198,356	17,278,237	—	902	1900
1925.....	44,030,302	25,924,329	18,105,973	—	1217	1698
			(vi) SUMMARY OF TABLES (i) TO (iv) INCLUDING GOLD AT STANDARD VALUE AND VALUE OF GOLD PREMIUM.			
	£	£	£	£		
1909.....	47,782,366	50,640,449	—	2,858,083	904	944
1910.....	51,763,439	52,795,152	—	1,031,713	943	980
1911.....	54,907,263	55,361,593	—	454,330	989	992
1912.....	60,996,361	59,825,849	1,170,512	—	1068	1020
1913.....	64,564,539	61,384,035	3,180,504	—	1096	1052
1914.....	52,752,893	52,896,937	—	144,044	945	997
1915.....	52,765,144	53,899,296	—	1,134,152	962	979
1916.....	62,078,419	56,867,852	5,210,567	—	1015	1092
1917.....	66,072,254	54,977,698	11,094,556	—	982	1202
1918.....	65,725,201	51,847,694	13,877,507	—	926	1268
1919.....	88,804,808	57,963,873	30,840,935	—	1035	1532
1920.....	91,711,179	50,852,652	40,858,527	—	908	1803
1921.....	68,811,990	52.643,650	16,168,340	—	940	1307
1922.....	60,370,838	48,760,777	11,610,061	—	871	1238
1923.....	76,848,508	60,297,909	16,550,599	—	1077	1274
1924.....	80,699,004	59,400,856	21,298,148	—	1061	1359
1925.....	85,380,203*	67,274,230	18,105,973	—	1201	1269

* Includes Gold Specie.

7. **Variation of Import Values.**—The following tables show the variation of the values of imports divided into three categories: (i) Food and Drink, (ii) Raw Materials, and (iii) Manufactured Articles. Table (iv) is a summary of the preceding three. As far as possible a similar method of calculation was pursued as in the case of exports. (See paragraph 6.) As, however, only one-third of the imported articles have quantities as well as values recorded, investigation of other sources of information was necessary. Details of the exports from the United Kingdom to South Africa in the former's trade returns, which are more detailed as to quantities, were extracted and collated with the variations of wholesale prices. Assistance was given by the British Board of Trade. The final results, tabulated below, though not purporting to be absolutely correct, may be taken as substantially accurate. Confirmation of the limits between which the margin of error might lie is afforded by a comparison of the weight of oversea cargo landed and the index of volume arrived at from the above calculation. The results are indicated hereunder. In the former case the year 1913 (the first for which details are available) is taken as the base equal to 1111, the index of volume for that year [see table (iv) hereunder].

	Oversea Cargo Landed.	Index of Volume of Imports.		Oversea Cargo Landed.	Index of Volume of Imports.
1913	1111	 1111	1919	555	 570
1914	906	 927	1920	964	 895
1915	740	 791	1921	612	 618
1916	782	 880	1922	682	 712
1917	628	 663	1923	923	 851
1918	520	 690	1924	1101	 1041

In the first place it must be remembered that during the war, owing to lack of shipping accommodation, there was every incentive to economy of space, with a tendency in consequence to import goods of less bulk. As a result, it was to be expected that throughout the war period the figures in the second column would be somewhat higher than those in the first, and that that difference would tend to disappear when more normal conditions supervened. The year 1918 shows a very large deviation, but that is chiefly accounted for by the quantities of soft goods imported in that year and the considerable falling off in raw materials, machinery, motor-cars, etc. In the years 1920 and 1923, the only ones in which the figure in the second column is lower than the first, a completely different state of things was in evidence, large quantities of grain and flour and raw materials, especially wood, the bulkiest of all, having been imported. It is seen that in the circumstances the figures do in fact show a remarkable degree of correspondence.

VARIATIONS IN VOLUME AND VALUE OF IMPORTS (INCLUDING IMPORTS OF GOVERNMENT STORES FROM 1910, BUT EXCLUDING IMPORTS FROM RHODESIA, AND, FROM 1922, SOUTH WEST AFRICA).

Year.	Recorded Value.	Value at 1909–13 Average	Effect of Change of Price.		Index No. of Volume of Imports (Average 1909–13 = 1000).	Index No. of Imports Values (Average 1909–13 = 1000).
			Increase.	Decrease.		
		(i) FOOD AND DRINK.				
	£	£	£	£		
1909.....	5,552,217	5,795,634	—	243,417	911	958
1910.....	5,942,062	6,081,947	—	139,885	956	977
1911.....	6,339,523	6,416,521	—	76,998	1009	988
1912.....	6,364,289	6,015,396	348,893	—	946	1058
1913.....	7,587,146	7,489,779	97,367	—	1178	1013
1914.....	5,998,254	5,974,357	23,897	—	939	1004
1915.....	6,192,364	5,593,825	598,539	—	880	1107
1916.....	5,839,629	4,932,119	907,510	—	776	1184
1917.....	5,113,831	4,055,377	1,058,454	—	638	1261
1918.....	4,734,401	3,871,137	863,264	—	609	1223
1919.....	4,852,217	2,750,690	2,101,527	—	433	1764
1920.....	14,070,104	5,481,147	8,588,957	—	862	2567
1921.....	5,398,033	3,247,914	2,150,119	—	511	1662
1922.....	5,598,165	3,709,851	1,888,314	—	583	1509
1923.....	6,908,443	4,892,589	2,010,854	—	769	1411
1924.....	7,626,295	5,223,490	2,402,805	—	821	1460
1925.....	8,017,811	4,973,828	3,043,983	—	782	1612

VARIATIONS IN VOLUME AND VALUE OF IMPORTS (INCLUDING IMPORTS OF GOVERNMENT STORES FROM 1910, BUT EXCLUDING IMPORTS FROM RHODESIA, AND, FROM 1922, SOUTH WEST AFRICA)—*continued.*

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Imports (Average 1909–13 = 1000).	Index No. of Imports Values (Average 1909–13 = 1000).
			Increase.	Decrease.		

(ii) RAW MATERIALS.

	£	£	£	£		
1909.....	2,444,134	2,594,622	—	150,488	713	942
1910.....	3,709,753	3,852,288	—	142,535	1058	963
1911.....	3,685,496	3,689,185	—	3,689	1013	999
1912.....	3,999,283	3,913,193	86,090	—	1075	1022
1913.....	4,353,816	4,154,405	199,411	—	1141	1048
1914.....	3,240,394	3,071,464	168,930	—	844	1055
1915.....	2,917,274	2,406,992	510,282	—	661	1212
1916.....	3,837,554	2,482,247	1,355,307	—	682	1546
1917.....	3,693,944	2,028,525	1,665,419	—	557	1821
1918.....	4,124,724	1,730,896	2,393,828	—	475	2383
1919.....	4,526,371	1,865,775	2,660,596	—	512	2426
1920.....	9,188,686	2,931,936	6,256,750	—	805	3134
1921.....	4,740,070	1,896,028	2,844,042	—	521	2500
1922.....	3,796,876	2,232,143	1,564,733	—	613	1701
1923.....	5,055,988	3,134,524	1,921,464	—	861	1613
1924.....	5,607,120	3,578,251	2,028,869	—	983	1567
1925.....	5,445,731	3,529,314	1,916,417	—	939	1543

(iii) MANUFACTURED ARTICLES.

	£	£	£	£		
1909.....	18,103,802	18,833,684	—	729,882	728	961
1910.....	26,873,831	27,130,378	—	256,547	1049	991
1911.....	26,632,097	26,876,884	—	244,787	1039	991
1912.....	28,225,741	28,315,946	—	90,205	1095	997
1913.....	29,494,808	28,191,037	1,303,771	—	1090	1046
1914.....	25,841,098	24,206,346	1,634,752	—	936	1068
1915.....	22,482,451	20,388,183	2,094,268	—	788	1103
1916.....	30,316,249	24,138,247	6,178,002	—	933	1256
1917.....	27,176,908	17,707,534	9,469,374	—	684	1535
1918.....	40,096,457	19,135,386	20,961,071	—	740	2095
1919.....	40,276,127	15,838,680	24,437,447	—	612	2543
1920.....	76,775,001	23,692,047	53,082,954	—	916	3241
1921.....	46,836,148	17,012,496	29,823,652	—	658	2753
1922.....	41,072,607	19,594,436	21,478,171	—	757	2096
1923.....	44,556,371	22,483,749	22,072,622	—	869	1982
1924.....	50,998,742	28,529,556	22,469,186	—	1103	1788
1925.....	53,088,236	31,996,623	21,091,613	—	1237	1659

(iv) SUMMARY OF TABLES (i) TO (iii).

	£	£	£	£		
1909.....	26,100,153	27,223,940	—	1,123,787	759	959
1910.....	36,525,646	37,064,613	—	538,967	1033	985
1911.....	36,657,116	36,982,590	—	325,474	1031	991
1912.....	38,589,313	38,244,535	344,778	—	1066	1009
1913.....	41,435,770	39,835,221	1,600,549	—	1111	1040
1914.....	35,079,746	33,252,167	1,827,579	—	927	1055
1915.....	31,592,089	28,389,000	3,203,089	—	791	1113
1916.....	39,993,432	31,552,613	8,440,819	—	880	1268
1917.....	35,984,683	23,791,436	12,193,247	—	663	1513
1918.....	48,955,582	24,737,419	24,218,163	—	690	1979
1919.....	49,654,715	20,455,145	29,199,570	—	570	2427
1920.....	100,033,791	32,105,130	67,928,661	—	895	3116
1921.....	56,974,251	22,156,438	34,817,813	—	618	2571
1922.....	50,467,648	25,536,430	24,931,218	—	712	1976
1923.....	56,515,802	30,510,862	26,004,940	—	851	1852
1924.....	64,232,157	37,331,297	26,900,860	—	1041	1721
1925.....	66,551,778	40,499,765	26,052,013	—	1129	1643

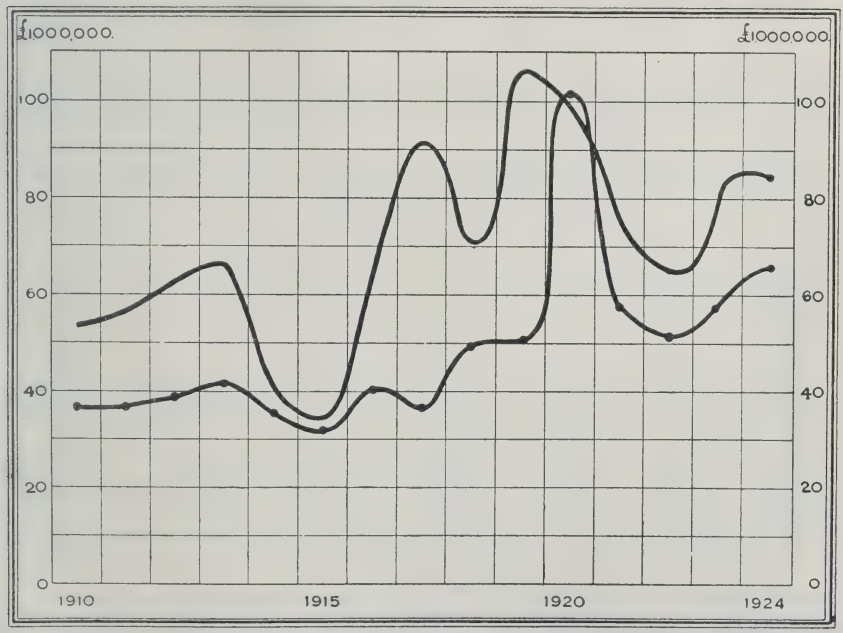
8. **Exports and Imports per Head of European Population.**—The following table shows the exports of South African produce and imports at the 1909–13 average values and the value per head of the European population.

EXPORTS AND IMPORTS PER HEAD OF EUROPEAN POPULATION AT 1909–13 VALUES FROM 1909.

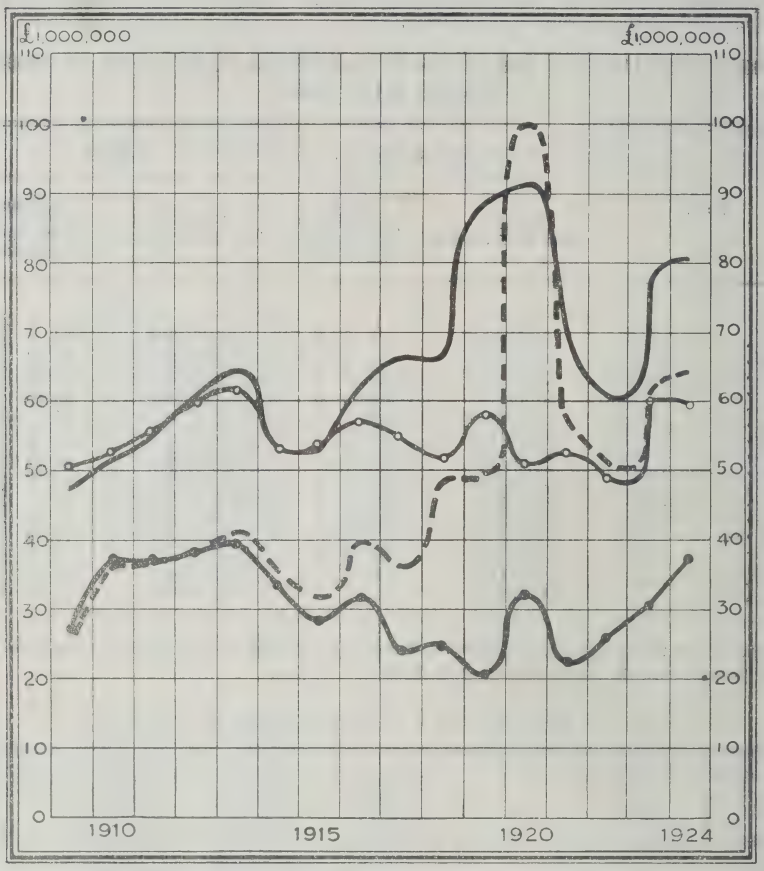
Year.	South African Exports.		Imports.	
	Value at 1909–13 Average.	Average per Head of European Population.	Value at 1909–13 Averages.	Average per Head of European Population.
	£	£ s. d.	£	£ s. d.
1909	50,640,449	41 0 7	27,223,940	22 1 1
1910	52,795,152	42 1 0	37,064,613	29 10 5
1911	55,361,593	43 4 9	36,982,590	28 17 8
1912	59,825,849	45 16 9	38,244,535	29 6 0
1913	61,384,035	46 3 0	39,835,221	29 19 0
1914	52,896,937	39 0 10	33,252,167	24 10 10
1915	53,899,296	39 1 4	28,389,000	20 11 6
1916	56,867,852	40 9 9	31,552,613	22 9 3
1917	54,977,698	38 9 3	23,791,436	16 12 11
1918	51,847,694	35 13 1	24,737,419	17 0 3
1919	57,963,873	39 5 2	20,455,145	13 17 1
1920	50,852,652	33 18 1	32,105,130	21 8 1
1921	52,643,650	34 11 6	22,156,438	14 11 0
1922	48,760,777	31 6 8	25,536,430	16 8 2
1923	60,297,909	38 3 5	30,510,862	19 6 3
1924	59,400,856	36 17 7	37,331,297	23 3 6
1925	67,274,230	41 1 8	40,499,765	24 14 8

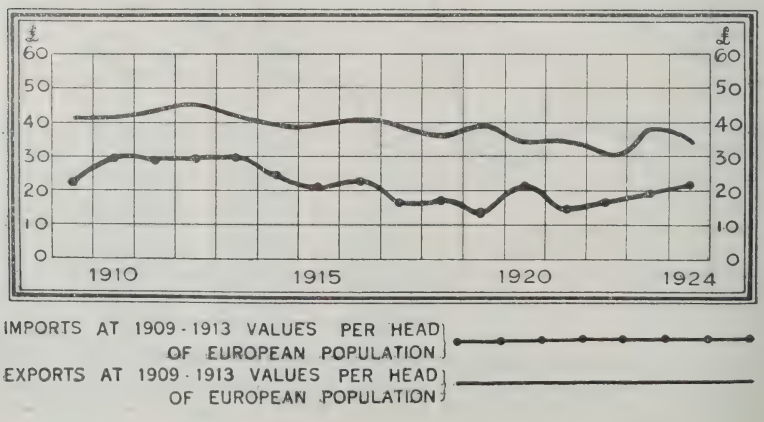
Graphs for the purpose of illustrating the above as well as the tables in the two preceding paragraphs are given on the next page.

IMPORTS AND EXPORTS, 1910–24.



IMPORTS AND EXPORTS, 1909–24.





9. **Trade with Neighbouring Countries.**—The value of the trade of the Union with certain neighbouring countries for a period of years is indicated in the following tables :—

VALUE OF UNION TRADE WITH CERTAIN NEIGHBOURING COUNTRIES, FROM 1910.

(*a*) IMPORTS FROM NEIGHBOURING COUNTRIES (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Country.	Average : 1910–14.	Average : 1915–19.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Belgian Congo	253	14,535	605	2,148	43,038	10,650
Kenya Colony (B.E.A.)	5,566	59,731	65,358	92,611	95,792	99,743
Nyasaland	982	4,048	178	68	257	12
Zanzibar	2,297	121,503	21,787	27,535	14,584	7,746
Madagascar	10,330	51,637	18,150	6,103	12,512	11,756
Mauritius	194,910	52,692	13,350	14,897	19,043	11,706
Portuguese East Africa	136,026	205,118	450,034	602,043	146,802	85,135
Southern Rhodesia	91,292	371,556	477,825	416,099	619,625	841,274
Northern Rhodesia	5,803	42,889	48,831	45,879	83,996	110,222
South West Africa	4,125	123,898	270,571	437,273	559 769	605,953
Tanganyika Territory (G.E.A.)	799	—	*	4,201	4,328	12,419

(*b*) EXPORTS TO NEIGHBOURING COUNTRIES (EXCLUDING SPECIE).

	£	£	£	£	£	£
Belgian Congo	129,068	327,069	552,253	507 266	298.914	142,473
Kenya Colony (B.E.A.)	14,460	165,401	136,962	68,183	41,475	71,731
Nyasaland	470	9,290	573	1,275	2,005	509
Zanzibar	4,226	48,571	62,283	7,854	12,721	6,951
Madagascar	10,261	88,453	43,906	12,152	24,016	9,058
Mauritius	42,750	184,508	294,175	147,754	167,649	101,861
Portuguese East Africa	195,190	546,198	606,193	441,681	352,357	359,411
Southern Rhodesia	1,298,393	1,631,843	2,737,063	2,339,688	2,162,475	1,511,448
Northern Rhodesia	77,524	108,611	267,645	213,345	211,924	146,191
South West Africa	149,629	921,384	881,302	813,899	873,055	1,090,896
Tanganyika Territory (G.E.A.)	3,104	—	*	4,217	8,120	6,926

* Included with Kenya Colony.

10. **Supplies for Ships.**—The following figures give the quantity and value of coal bunkered, and of beef and other articles, the produce of the Union, supplied for the use of vessels, for a series of years :—

COAL, BEEF, AND OTHER ARTICLES OF UNION PRODUCE SUPPLIED TO VESSELS FROM 1910.

Year.	Coal Bunkered.		Beef Supplied.		Value of Other Articles Supplied.	Total Value of All Union Produce Supplied.
	Quantity.	Value.	Quantity.	Value.		
	Tons.	£	lb.	£	£	£
Average :						
1910–14	1,392,301	1,015,607	190,556	4,273	33,543	1,053,423
1915–19	1,702,460	1,960,478	1,925,481	53,080	169,147	2,182,705
Year.						
1920	1,852,663	3,635,949	1,773,612	63,500	272,397	3,971,846
1921	1,636,445	3,201,449	1,282,198	46.004	179,036	3,426,489
1922	1,42 ,869	1,944,640	1,060,853	27,944	136,956	2,109,540
1923	1,807,971	2,095,082	919,110	22,027	114,573	2,231,682
1924	1,816,021	2,091,318	1,009,236	22,999	86,545	2,200,862

11. **Insurance and Freight Charges.**—From the beginning of 1922 calculations were made of the cost of insurance and freight on the importation of merchandise into the Union. The totals for 1922, 1923, and 1924 under this head were £4,043,999, £4,427,549, and £5,128,346 respectively. Applying the same percentage to the year 1921, an approximate figure of £4,270,000 is obtained for that year.

§ 6. Excise Duties.

Excise Duties Imposed in the Union.—Particulars of excise legislation both before and since the establishment of the Union will be found in previous issues of the *Official Year Book*. Details as to revenue collections of excise are given in Chapter XXII.

(i) *Spirits and Beer.*—The following table shows the duties and the rebates allowed under Act No. 35 of 1921.

TARIFF OF EXCISE DUTY ON SPIRITS AND BEERS MANUFACTURED IN THE UNION (ACT No. 35 OF 1921).

ARTICLE.

Spirits.	Rate of Duty.
	£ s. d.
Wine brandy, viz., spirits distilled from wine or must produced solely by the alcoholic fermentation of the juice of fresh grapes, per imperial proof gallon	0 12 6
Grape brandy, viz., the distillate resulting from the distillation solely of grape juice together with the husks, per imperial proof gallon	0 17 6
Dop brandy and spirits distilled from materials other than the produce of the vine, per imperial proof gallon	1 2 6

Beer.	Rate of Duty.
	£ s. d.
Beer brewed from worts of the specific gravity of not less than one thousand and twenty degrees, and not more than one thousand and thirty-nine degrees, per 36 imperial gallons	0 15 0
Beer brewed from worts of the specific gravity below one thousand and twenty degrees and above one thousand and thirty-nine degrees, per 36 standard gallons (With a proportionate increase or decrease for any difference in gravity.)	1 10 0
Lager beer produced from worts of the specific gravity of less than one thousand and forty degrees shall be charged at the higher rate of duty.	

Rebates of Excise Duties on Spirits.	Extent of Rebates.
(*a*) Spirits of a strength of 50 per cent. overproof and upwards when methylated in the manner prescribed by regulation	The whole duty.
(*b*) Plain spirits used in the manufacture of medicinal preparations, flavouring essences, and perfumed spirits; subject to the approval of, and to conditions imposed by, the Commissioner of Excise	The whole duty, less seven shillings and six pence per imperial proof gallon.
(*c*) Plain spirits used for industrial purposes, and rendered unpotable to the satisfaction of the Commissioner of Excise	The whole duty.
(*d*) Plain spirits used by scientific or teaching institutions for burning, preserving, or experimental purposes, and plain spirits used in, and essential for, the working of X-ray and similar apparatus, under such safeguards as the Commissioner of Excise may impose	The whole duty.
(*e*) Wine brandy and grape brandy, used in the fortification or preservation of pure wine, subject to compliance with the provisions of any Act relating to excise duties, or any regulations issued thereunder	The whole duty.
(*f*) Rectified spirit used in the manufacture of ether, or other substance, by a process which causes the ethyl alcohol to undergo chemical change, and provided that not more than 2 per cent. by volume of ethyl alcohol remains in the resulting ether or other product	The whole duty.
(*g*) Spirits exported for consumption outside the limits of the Union	The whole duty.
(*h*) Spirits lost through evaporation, leakage, or other unavoidable cause when such loss is proved to the satisfaction of the Commissioner of Excise	The whole duty.
(*i*) Spirits distilled in Natal from the products or by-products of the sugar-cane, when duty paid for consumption in Natal	Five shillings per imperial proof gallon.
(*j*) Plain spirits used in the manufacture of vinegar and acetic acid; subject to the approval of, and to conditions imposed by, the Commissioner of Excise	The whole duty, less two shillings per imperial proof gallon.
(*k*) Brandy distilled in a pot still, under excise supervision, wholly from pure wine or must the produce of pure grapes, approved of by the Government Brandy Board, at a strength not exceeding 30 per cent. over proof, matured by storage in an approved warehouse in approved wood for a period of three years and certified by the said Board to be pure wine brandy	Three shillings per imperial proof gallon.

(ii) *Cigarette Excise Surtax.*—The *Cigarette Excise and Surtax Act*, 1911, repealed the Cape Act of 1909, and re-enacted the tax throughout the Union. Instead, however, of the tax being collected by means of stamps affixed to each container at the time of their retail sale, the tax is now collected from the manufacturer by means of stamps affixed to the

container before cigarettes leave the factory, or from an importer at the time of first importation or delivery from a bonded warehouse. Manufacturers overseas are allowed to purchase the necessary stamps and affix them to the containers of cigarettes at the time of manufacture. The schedule of the Act imposing these duties, as amended by Act No. 35 of 1922, reads as follows :—

(*a*) On all cigarettes manufactured in the Union, whether made from tobacco grown or produced therein, or from tobacco imported therein, or from a mixture of Union grown and imported tobaccos, an excise duty for every one-half ounce net weight or fraction thereof ½d.
(*b*) On all cigarettes imported into the Union and delivered for consumption therein, a surtax (in addition to the duty payable under the Customs laws) for every one half-ounce net weight or fraction thereof..... ½d.

(iii) *Tobacco.*—Act No. 27 of 1924 imposed the following excise duties on tobacco manufactured in the Union, with similar customs duties on tobacco manufactured in a territory the Government of which has entered into a customs agreement with the Government of the Union, on importation into the Union :—

	Excise duty. s.	d.
(*a*) Ready for smoking in a tobacco pipe, including cake, plug, and stick tobacco, per pound weight	0	3½
(*b*) Ready for use in the making of cigarettes, per pound weight.....	0	6
(*c*) In the form of cigarettes, per pound weight.....	0	6
(*d*) In the form of cigars or cigarillos, per pound weight.....	1	0
(*e*) In the form of roll tobacco, per pound weight.....	0	2

(iv) *Sugar.*—The *Customs Amendment and Excise Duties Extension Act*, No. 22 of 1915, imposed a duty on Union sugar of 1s. per 100 lb. Act No. 37 of 1916 reimposed the duty until the 30th June, 1917 ; Act No. 36 of 1917 until 30th June, 1918 ; Act No. 20 of 1918 until 30th June, 1919 ; Act No. 32 of 1919 until 30th June, 1920 ; and the duty was made permanent by Act No. 44 of 1920.

(v) *Matches.*—The *Matches Duty Act*, No. 13 of 1914, imposed a duty on Union matches of 1s. per gross of boxes containing not more than 100 matches, 2s. per gross of boxes containing not more than 200 matches, and so on in proportion for any increase in size of boxes.

(vi) *Playing-Cards.*—The *Customs Amendment and Excise Duties Extension Act*, No. 22 of 1915, imposed a duty on Union playing-cards at the rate of 3d. per pack (not exceeding fifty-three cards). Act No. 37 of 1916 reimposed the duty until the 30th June, 1917 ; Act No. 36 of 1917 until 30th June, 1918 ; Act No. 20 of 1918 until 30th June, 1919 ; Act No. 32 of 1919 until 30th June, 1920 ; and the duty was made permanent by Act No. 44 of 1920.

(vii) *Acetic and Pyroligneous Acids, etc.*—The *Excise and Customs Tariff Amendment Act*, No. 37 of 1913, imposed a duty on Union acetic and pyroligneous acids, extracts and essences of vinegar, as follows :—

If of a strength not exceeding the strength of proof per gallon or fraction of a gallon..... 1s.
And in addition for each degree of strength in excess of the strength of proof per degree..... 4d.
Proof held to be equal to 6 per cent. of absolute acid.

(viii) *Patent or Proprietary Medicines.*—The *Customs and Excise Duties Amendment Act*, No. 23 of 1923, imposed a duty on patent or proprietary medicines sold or exposed for sale by retail, which was repealed by Act No. 27 of 1924.

§ 7. Patents, Designs, Trade Marks, and Copyright.

1. **General.**—Act No. 9 of 1916, which was brought into force on the 1st January, 1917, repealed all previous legislation embraced in no fewer than *thirty-two* Acts and Proclamations of the various Provinces, and made consolidated and comprehensive provision in respect of patents, designs, trade marks, and copyright in the Union. The administration of the Act is vested in the Minister of Justice, and the office concerned with each of the four subjects of the Act is expressly fixed at Pretoria, under a Registrar. Seals of office are provided for. Impressions of such seals are to be admitted in evidence, and judicially noted. The Registrar may in any proceedings before him—

(*a*) receive evidence on affidavit or *viva voce* upon oath ;
(*b*) summon witnesses and issue commissions *de bene esse* ;
(*c*) order discovery or inspection, and require the production of documents ;
(*d*) award costs against any party to proceedings before him.

The registers kept under the Act are open to public inspection on payment of the prescribed fee. Penalties are provided for offences against the Act, including the making

of false entries and of false statements. Officers of the patent office are forbidden to traffic in patents. Special penalty is enforceable in the case of the unauthorized use of the Royal Arms or the Arms of the Union upon any article.

2. **Patents.**—The following persons, whether British subjects or not, may make application for a patent:—

(*a*) The inventor, either alone or jointly with one or more other persons; or
(*b*) the inventor jointly with the assignee of a part interest in the invention; or
(*c*) the assignee of the inventor, either alone or jointly with one or more other persons.

An application for a patent must be made in a prescribed form, and must contain a declaration as to the facts relied upon to support the application. A provisional or complete specification in quadruplicate must be supplied.

The Registrar may accept or refuse the application or may return the specification or drawing for amendment; but in the case of refusal the applicant is permitted to appeal to the law officer. If the application and specification have been accepted, the Registrar gives written notice of that fact to the applicant, and in the case of a complete specification transmits one of the specifications to the Attorney-General at Cape Town, Pietermaritzburg, and Bloemfontein. The acceptance, if of a complete specification, must be advertised not later than one month from the date of such acceptance, and within two months after the last advertisement, or such further time as the Registrar may allow. Any person may give notice to oppose such patent on any of the following grounds, but no other:—

(*a*) That the applicant has obtained the invention from the person giving such notice (hereinafter referred to as the objector), or from a person of whom the objector is the legal representative or assignee;
(*b*) that the invention has been fraudulently obtained to the prejudice of another's rights;
(*c*) that the complete specification describes or claims an invention other than that described in the provisional specification, and that such other invention forms the subject of an application made by the objector in the interval between the leaving of the provisional specification and the leaving of the complete specification;
(*d*) that the invention is not novel, or is not capable of being patented in terms of the definition of invention in section *six* of the Act;
(*e*) that the person represented as being the inventor is not such;
(*f*) that the invention or the application of the same is contrary to law, public order, or good morals;
(*g*) that the complete specification does not sufficiently disclose or explain the invention or the manner in which it is to be performed.

Opposed applications are heard and determined by a judge. If there is no opposition or if an opposed application is determined in favour of the patent, a patent is granted on payment of the prescribed fee, and the patent is sealed. The term limit of a patent is *fourteen* years from its date, subject to extensions, which must be applied for under prescribed procedure. The effect of a patent is to grant to the patentee, subject to the Act and the conditions of the patent, full power, sole privilege, and authority, by himself, his agents and licensee during the term of the patent, to make, use, exercise, and vend the invention within the Union, so that he shall have the sole profit and advantage thereof.

Provision is also made for patents of addition, the restoration of lapsed patents, the revocation of patents, and the issue of a single patent for cognate inventions. Certain provisions are made as to procedure in respect of actions for infringements of patents. A patent may be acquired by the Government by agreement with the patentee or by arbitration. The inventor of any improvement in instruments or munitions of war may assign the patent to the Government.

Any person resident in the Union on passing the prescribed examination, and on paying to the registrar a fee of £5, may be registered as a *patent agent*. Attorneys are entitled to practise as *patent agents* without passing an examination.

Fees.—The following fees are payable in respect of a patent:—

On filing application for patent	£1.
On filing complete specification	£3.
On sealing patent	£1.

Renewal Fees.

1. Before the expiration of the third year from the date of the patent	£4.
2. Before the expiration of the seventh year from the date of the patent	£6.
3. Before the expiration of the tenth year from the date of the patent	£10.

NOTE.—*Any or all of the payments for renewals may be made in one sum.*

3. **Designs.**—The Registrar may, on the application (made in the prescribed form and manner) of any person claiming to be the proprietor of any new or original design not previously used in the Union, and not described in any printed publication, nor registered or patented in the Union or in any other country, register the design under the Act. A certificate of registration is then given. The effect of registration is to give the proprietor copyright for a period of *five years*. Extension of the period may be authorized on application and payment of the prescribed fee.

4. **Trade Marks.**—A registrable trade mark must contain or consist of at least one of the following essential particulars:—

(*a*) The name of a company, individual, or firm represented in a special or particular manner; or
(*b*) the signature of the applicant for registration or of some predecessor in his business; or
(*c*) an invented word or invented words; or
(*d*) a distinctive word or words not reasonably required for use in the trade; or
(*e*) any other distinctive mark.

The Registrar may refuse to register a trade mark which contains—

(*a*) a representation of the King, the Queen, or any member of the Royal Family, or of the Royal Crown; or
(*b*) the word "Royal" or any word, letter, or device indicating Royal or Government patronage; or
(*c*) a representation of the Royal Arms, or of a national flag of the United Kingdom, or of the national arms of the United Kingdom, or of the Arms or Seal of the Union; or
(*d*) a representation of any living person without his written consent.

Any person claiming to be the proprietor of a trade mark may apply for its registration in accordance with prescribed procedure. The Registrar's refusal to register may be appealed against. Opposition to registration may be noted. The registration of a trade mark is for fourteen years, but may be renewed from time to time upon payment of the prescribed fee. A trade mark may be removed from the register if the conditions as to use and renewal are not complied with.

5. **Copyright.**—The British *Copyright Act*, 1911, has been given effect in the Union, subject to certain modifications, the Governor-General exercising the powers of the Board of Trade, and any other reference to the Board of Trade being construed as a reference to the Minister. The Governor-General may by proclamation direct the extension of the British Copyright Act and the Union Act to literary, musical, dramatic, and artistic works first produced or published in any part of the British dominions to which the British Act does not extend in like manner as if such works had first been produced or published in the Union. Copyrights are registered by the Registrar.

6. **Return of Applications and Registrations of Patents, etc.**—The subjoined tables give for a period of years particulars as to the number of applications and registrations in respect of patents, trade marks, and copyright in the Union, together with details of the countries of origin of patents and trade marks and the classes of copyright works registered.

(i) PATENTS, TRADE MARKS, AND COPYRIGHT.—PARTICULARS AS TO NUMBER OF APPLICATIONS AND REGISTRATIONS IN THE UNION, 1919 TO 1924.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Patents—						
Applications	1,105	1,449	1,239	1,237	1,257	1,283
Patents Granted	661	1,005	1,190	826	841	910
Assignments and Licences Registered	16	133	200	82	84	198
Trade Marks—						
Applications	1,585	1,736	1,215	1,116	1,362	1,324
Registrations	1,213	1,234	1,550	869	899	932
Assignments Registered	233	421	444	1,005	216	460
Copyrights—						
Registrations	73	147	81	57	58	87

(ii) PATENTS AND TRADE MARKS.—COUNTRIES OF ORIGIN OF APPLICATIONS, 1921 TO 1924.

Country of Origin.	1921.	1922.	1923.	1924.
PATENTS.				
Union of South Africa	513	538	522	547
Great Britain	334	343	365	336
Australia	75	77	85	64
New Zealand	13	16	10	10
Canada	12	13	12	9
Egypt	—	2	—	—
India	1	2	6	1
Mauritius	—	1	1	—
Rhodesia	11	4	5	3
South West Africa	3	2	1	—
West India Islands	—	—	2	1
United States of America	137	134	136	176
Other Foreign Countries	140	105	112	136
TOTAL	1,239	1,237	1,257	1,283
TRADE MARKS.				
Union of South Africa	396	408	690	653
Great Britain	411	373	403	371
Australia	9	22	19	6
New Zealand	1	—	3	—
Canada	5	3	1	9
India	1	1	—	—
United States of America	230	172	135	142
Other Foreign Countries	162	137	111	143
TOTAL	1,215	1,116	1,362	1,324

(iii) COPYRIGHT.—CLASSES OF WORKS REGISTERED, 1921 TO 1924.

Description.	1921.	1922.	1923.	1924.
Artistic	2	1	1	4
Dramatic	1	3	1	2
Literary	46	29	40	33
Literary (Collective)	15	16	11	23
Musical	2	2	2	14
Photographs	15	6	3	11
TOTAL	81	57	58	87

§ 8. Trading Licences.

1. **Description and Scale of Licences.**—Act No. 32 of 1925 has appended two schedules containing a list of specified trades, professions, and occupations for which licences have to be taken out before the trade, profession, or occupation can be carried on. The *First Schedule* provides for the following licences, which have full force and effect throughout the Union wheresoever they may be issued, except in the case of those which, in terms of the schedule, are required for or restricted to specific premises or areas.

(i) Agents for foreign firms.
(ii) Banker or banking institution.
(iii) Commercial traveller.
(iv) For sale of fireworks.
(v) Newspaper publishers.

The duties collected in respect of these licences accrues to the Consolidated Revenue Fund of the Union.

The *Second Schedule* contains a list of licences, shown by an asterisk in the lists below, which have force and effect only within the Province in which they are issued, save in those cases in which other provision is specifically made either in the schedule itself or elsewhere in the Act. The duties collected in regard to these licences accrue to the Provincial Revenue Fund of the Province in which liability for such licence duties arises. The Ordinances of the various Provinces provide, in addition, for a number of licences, the duties on which are collected and assigned to Provincial Revenue purposes.

With a few exceptions, licences fall due to be renewed on the first day of January each year, but in most cases if the liability to take out a licence only commences after the first day of July, the amount payable in respect of the licence is one-half the scheduled amount.

Every licence must be taken out in the district where the trade, profession, or occupation is carried on.

The following lists show the licences required to be taken out in each Province and the scale of duties payable :—

CAPE OF GOOD HOPE PROVINCE.

	£	s.	d.
*†Advertising agent or advertising contractor	5	0	0
*‡Aerated or mineral water manufacturer	10	0	0
*‡Aerated or mineral water dealer	3	0	0
Agent of foreign firm—			
Yearly	75	0	0
For period of three months	50	0	0
(An agent who has been ordinarily resident within the Union for three years immediately prior to taking out such licence is charged half the rates specified, and such agent who is the *bona fide* employee of a duly licensed agent of a foreign firm is charged £15.)			
*‡Apothecary	5	0	0
(This licence is not required by a medical practitioner dispensing his own prescriptions, but see under "Medical practitioner, Cape Province.")			
*Accountant	10	0	0
*Actuary	10	0	0
*Advocate	10	0	0
*Architect	10	0	0
*Attorney	10	0	0
(If practising in the Transkeian Native Territories or the District of Glen Grey, £5.)			
*†Appraiser or assessor	5	0	0
*Auctioneer—			
For an entire Province	20	0	0
For a particular magisterial district only	10	0	0
*‡Baker	5	0	0
*‡Bagatelle table keeper (for each table)	4	0	0
*‡Billiard table keeper (for each table). †(If not on licensed premises, £5.)	12	0	0
Banker or banking institution (in respect of each branch)	20	0	0
*Boarding- and lodging-house keeper.	5	0	0
*Board of executors or trust company—			
Head office	50	0	0
Each branch office	25	0	0
*†Broker or agent	5	0	0
Bookmaker	5	0	0
Brewer	1	0	0
§Bonded or bonding warehouse	20	0	0
*†Buchu buyer	1	0	0
*Butcher—			
Wholesale	75	0	0
‡Retail—			
In urban area	7	10	0
In rural area	2	10	0
*Canvasser for sale of shares or land	50	0	0
§Cigarette manufacturer	1	0	0
Company (under Act No. 46 of 1926): minimum	1	0	0
(In addition, 5s. for every £1,000 or part of £1,000 of subscribed capital.)			
*Consulting engineer (any branch of engineering)	10	0	0
*Conveyancer	3	0	0
Commercial traveller—			
Wholesale	15	0	0
Retail	7	10	0
*†Dealer or speculator in live stock or produce	10	0	0
*Dentist	10	0	0
Diamond broker	15	0	0
Diamond dealer	30	0	0
Endorsement on licence (for one month)	0	5	0
*†Eating-house keeper	5	0	0
(In the Transkeian Native Territories or the District of Glen Grey, £1.)			

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).
† In the Cape Province these licences are sold at all money order offices, with the exception of such offices in the Transkei.
‡ In the Cape Province these licences are sold at all money order offices, with the exception of such offices in the Transkei, but certificates or authorities are required before the licence is issued.
§ Issued by the Commissioner of Customs and Excise, Pretoria.

CAPE OF GOOD HOPE PROVINCE—*continued.*

	£	s.	d.
Excise licences—			
Compounder or rectifier of spirits	10	0	0
Distiller (other than agricultural distiller) who distils pure wine or must	5	0	0
Distiller (agricultural) who distils pure wine or must	0	2	6
Distiller (other than agricultural distiller) who distils produce of vines other than pure wine or must	5	0	0
Distiller from material other than produce of vines of Cape Province	10	0	0
Stillmaker	1	0	0
Stillkeeper, not being licensed distiller, rectifier or compounder	1	0	0
Vinegar maker	1	0	0
§Explosives	50	0	0
Ferry (Griqualand West)	10	0	0
Fishing vessels—			
Boats, 50 tons and over	5	0	0
20–49 tons	2	10	0
Under 20 tons (sailing or rowing)	0	1	0
Under 20 tons (motor)	1	0	0
Trawling vessel to operate trawl nets to a number to be specified on licence : each trawl net	5	0	0
Whale fishing, per vessel	50	0	0
†Flowers, ferns, shrubs (whole year from date of issue)	0	5	0
Fireworks, for the sale of, in respect of each shop	1	0	0
Game—			
‡To hunt Royal game—			
(*a*) Person not domiciled in Cape Province	25	0	0
(*b*) Person domiciled in Cape Province	3	0	0
†To kill (for one season)	1	0	0
‡To sell	4	0	0
*General dealer—			
Where average stock in hand—			
‡(*a*) Does not exceed £2,000	5	0	0
(*b*) Exceeds £2,000 : Upon so much stock as does not exceed £2,000	5	0	0
As exceeds £2,000, but does not exceed £5,000 : £1. 10s. per £1,000 or part thereof as exceeds £5,000, but does not exceed £10,000; £2 per £1,000 or part thereof as exceeds £10,000, but does not exceed £20,000; £2. 10s. per £1,000 or part thereof as exceeds £20,000, but does not exceed £30,000; £3 per £1,000 or part thereof as exceeds £30,000; £3. 10s. per £1,000 or part thereof, subject to maximum of	100	0	0
Gunpowder	5	0	0
Hulk (not in process of breaking up)	20	0	0
Hulk or condemned vessel (in process of breaking up)—			
First six months	25	0	0
Second six months	30	0	0
Third six months	35	0	0
*‡Hawker—			
Outside urban area	10	0	0
Within urban area	5	0	0
Trading in certain specified products of the Union only	1	0	0
For each additional vehicle, pack animal, or carrier	1	0	0
Insurance company	50	0	0
From 1st August	25	0	0
(Each person transacting insurance business in the Union on behalf of brokers or underwriters at Lloyds, or on behalf of members of similar associations of individual underwriters, must take out a licence.)			
Importer, upon value of goods imported in the year—			
Exceeding £1,200, minimum	10	0	0
In addition, £1 for every £100 or part thereof above £1,200; maximum, £300.			
*Interpreter or translator	2	10	0
Liquor licences—			
Bottle licence	30	0	0
In addition, £5 for every £1,000 or part thereof of gross receipts exceeding £1,500; maximum licence, £150.			
Club	40	0	0
In addition, £5 for every £1,000 or part thereof of gross receipts exceeding £1,000 up to £2,500, and £10 for every £1,000 or part thereof of gross receipts exceeding £2,500; maximum licence, £150.			
Colonial light wine, retail	1	0	0
Removal of licence to other premises	4	0	0
Retail—			
Within municipality	40	0	0
Outside municipality	30	0	0
In addition, £5 for every £1,000 or part thereof of gross receipts exceeding £2,000 up to £3,000, and £10 for every £1,000 or part thereof of gross receipts exceeding £3,000; maximum licence, £150.			
Retail licences midnight privileges, in addition to above amounts	10	0	0
Temporary, per diem	1	0	0
Theatre refreshment room	25	0	0
In addition, £5 for every £1,000 or part thereof of gross receipts exceeding £1,500 up to £2,500, and £10 for every £1,000 or part thereof of gross receipts exceeding £2,500; maximum licence, £150.			
Transfer of a licence to a person other than the licensee	4	0	0
Wholesale	40	0	0
In addition, £2. 10s. for every £1,000 or part thereof of gross receipts exceeding £10,000 up to £30,000, and £5 for every £1,000 or part thereof of gross receipts exceeding £30,000; maximum licence, £250.			
*Land surveyor	5	0	0
*Law agent	7	10	0
(If practising in the Transkeian Territories or the District of Glen Grey, £3. 15s.)			
*†Laundry—			
Steam	10	0	0
Other	5	0	0
*Medical practitioner	10	0	0
To dispense medicines	2	10	0
*Miller	5	0	0
*†Motor garage	3	0	0
Native location on private property—			
For each labour tenant	0	10	0
For each ordinary tenant	2	0	0
Newspaper publishers—			
For every daily newspaper published	10	0	0
For newspapers issued at intervals not exceeding seven days	5	0	0
*Notary	3	0	0

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).

† In the Cape Province these licences are sold at all money order offices with the exception of such offices in the Transkei.

‡ In the Cape Province these licences are sold at all money order offices with the exception of such offices in the Transkei but certificates or authorities are required before the licence is issued.

§ Issued by the Chief Inspector of Explosives, Johannesburg.

‖ Issued by the South African Railways and Harbours Administration.

CAPE OF GOOD HOPE PROVINCE—*continued.*

	£	s.	d.
Ostrich, wild : to kill, catch, or hunt, for one year from date of issue	20	0	0
*†Ostrich feather buyer	10	0	0
†Oysters, to collect—			
Whole season	0	6	0
Per month	0	1	0
*‡Patent or proprietary medicines (not including Dutch medicines), general dealers only, to sell	2	0	0
*Pawnbroker	15	0	0
*‡Pedlar—			
Outside urban area	2	0	0
Within urban area	1	0	0
*‡Produce (fresh) dealer	2	0	0
Poisons : general dealer, certificate to sell arsenic and strychnine	1	0	0
Prospecting—			
For precious stones or minerals (per month)	0	2	6
Dredging for precious stones (for one year from date of issue)	15	0	0
For base metals (per month)	0	1	0
*Quantity surveyor	10	0	0
*†Restaurant, refreshment or tea room keeper	5	0	0
*Speculator in futures	25	0	0
Steam launch	2	0	0
Steam tug	10	0	0
*†Stock and share broker	10	0	0
Trout and other indigenous fish—			
To fish, for full season	1	0	0
To sell, per calendar year	5	0	0
*Temporary or special licence (for one day)	0	10	0

With the following exceptions and those mentioned above under attorney, eating-house keeper and law agent, the tariff in force in the Cape Province applies also to the Native Territories.

	£	s.	d.
Wine and spirit—			
Bottle store	15	0	0
Club	30	0	0
Hotel—			
In urban areas	20	0	0
Not in urban areas	15	0	0
Regimental canteen	Free		
Temporary, per diem	0	10	0
Transfer or removal	1	0	0

Importers' Licences.

From and after the 1st January, 1921, for the purpose of calculating the amount of licence duty payable by an importer, account is not taken of—

(*a*) the value of goods imported into the Province in transit to any place beyond the borders of the Province;

(*b*) the value of goods which, being the growth, produce or manufacture of the Union of South Africa, are imported into the Province from any other Province of the Union;

(*c*) the value of goods which, not being the growth, produce or manufacture of the Union of South Africa, are imported into the Province from any other Province of the Union provided that the said goods have been purchased by the importer from a person resident in that other Province.

For the purpose of calculating the said licence duty, the value of goods is the value as ascertained for Customs purposes, and every importer pays the licence duty immediately the value of his importations reaches any of the tariff amounts prescribed in Ordinance No. 16 of 1920.

NATAL PROVINCE.

	£	s.	d.
*Advertising agent or advertising contractor	5	0	0
*Aerated or mineral water manufacturer	10	0	0
*Aerated or mineral water dealer	3	0	0
Agent of foreign firm	75	0	0
For period of three months	50	0	0
(An agent who has been ordinarily resident within the Union for three years immediately prior to taking out such licence is charged half the rates specified, and such agent who is the *bona fide* employee of a duly licensed agent of a foreign firm is charged £15.)			
*Apothecary	5	0	0
(This licence is not required by a medical practitioner dispensing his own prescriptions.)			
*Accountant	10	0	0
*Actuary	10	0	0
*Advocate	10	0	0
*Architect	10	0	0
*Attorney	10	0	0
*Appraiser or assessor	5	0	0
*Auctioneer—			
For an entire Province	20	0	0
For a particular magisterial district only	10	0	0
*Baker	5	0	0
*Bagatelle table keeper (for each table)	4	0	0
*Billiard table keeper (for each table). (If not on licensed premises, £5.)	12	0	0
Banker or banking institution (in respect of each branch)	20	0	0
*Boarding- and lodging-house keeper.	5	0	0
*Board of executors or trust company—			
Head office	50	0	0
Each branch office	25	0	0
*Broker or agent	5	0	0
Bookmaker	50	0	0
After 30th June	30	0	0
(Provided that in the case of a bookmaker who carries on a business only at race meetings and/or at gymkhanas, and there only in what is known as the "silver ring" and conformably to the recognized practice at a "silver ring," the fees shall be respectively £15 and £10.)			

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).

† In the Cape Province these licences are sold at all money order offices, with the exception of such offices in the Transkei.

‡ In the Cape Province these licences are sold at all money order offices, with the exception of such offices in the Transkei, but certificates or authorities are required before the licence is issued.

NATAL PROVINCE—*continued.*

	£	s.	d.
†Bonded or bonding warehouse	20	0	0
Brewer	1	0	0
*Buchu buyer	1	0	0
*Butcher—			
Wholesale	75	0	0
Retail—			
In urban area	7	10	0
In rural area	2	10	0
*Canvasser for sale of shares or land. Company (under Act No. 46 of 1926): minimum	50	0	0
(In addition, 5s. for every £1,000 or part of £1,000 of subscribed capital.)	1	0	0
*Consulting engineer (any branch of engineering)	10	0	0
*Conveyancer	3	0	0
Commercial traveller—			
Wholesale	15	0	0
Retail	7	10	0
Dealer in old metal	5	0	0
*Dealer or speculator in live stock or produce	10	0	0
*Dentist	10	0	0
‡Dog licence	0	10	0
*Eating-house keeper	5	0	0
§Explosives—			
To manufacture	50	0	0
Magazine	5	0	0
Excise licences—			
To keep an unused still	1	0	0
To distil spirits (for each still)	5	0	0
To rectify or compound spirits (for every still used)	5	0	0
To make stills	1	0	0
To retail methylated spirits—			
(i) In Durban and Pietermaritzburg	2	0	0
(ii) In any other part of the Natal Province	1	0	0
To make wine	1	0	0
Dealer in malt	5	0	0
Firearms, dealer in	5	0	0
Fireworks, for sale of, in respect of each shop	1	0	0
Fisheries—			
By net (according to size of net).	1	0	0
	to		
	10	0	0
To angle	1	0	0
For every crab-pot	0	10	0
For every fish factory	1	0	0
For every fishing boat—			
(i) Not mechanically propelled	0	10	0
(ii) Mechanically propelled	1	0	0
For every fish kraal	7	10	0
For taking oysters—			
(i) For trade	5	0	0
(ii) Visitors (per diem)	0	1	0
For taking mussels	0	10	0
For each additional mussel licence (up to four)	0	5	0
Game—			
Shooting specially protected game, for each head	0	2	6
	to		
	20	0	0
Shooting ordinary game (per season)	1	0	0
*General dealer—			
Minimum	5	0	0
Maximum	100	0	0
(For fuller details, see under same heading, Cape Province, above.)			
Insurance company	50	0	0
From 1st August	25	0	0
(Each person transacting insurance business in the Union on behalf of brokers or underwriters at Lloyds or on behalf of members of similar associations of individual underwriters, must take out a licence.)			

	£	s.	d.
*Hawker—			
Outside urban area	10	0	0
Within urban area	5	0	0
Trading in certain specified products of the Union only	1	0	0
For each additional vehicle, pack animal, or carrier	1	0	0
*Interpreter or translator	2	10	0
Liquor licence—			
(i) Outside boroughs or townships—			
Country hotel	8	0	0
Colonial beer	5	0	0
Temporary licence (for each day)	1	0	0
Wholesale	10	0	0
Club	20	0	0
Bottle	10	0	0
Native beer	5	0	0

(ii) Issued in boroughs or townships—

	Borough.			Township.		
	£	s.	d.	£	s.	d.
Hotel, bar or bottle—						
First year	50	0	0	25	0	0
Succeeding year	30	0	0	15	0	0
Hotel and bar—						
First year	100	0	0	30	0	0
Succeeding year	60	0	0	20	0	0
Colonial beer	20	0	0	10	0	0
Native beer	6	0	0	6	0	0
Wholesale	30	0	0	20	0	0
Club	30	0	0	20	0	0
Temporary (for each day)	1	0	0	1	0	0

	£	s.	d.
*Land surveyor	5	0	0
*Law agent	7	10	0
*Laundry—			
Steam	10	0	0
Other	5	0	0
Market building	10	0	0
Market stall	5	0	0
*Medical practitioner	10	0	0
*Miller	5	0	0
*Motor garage	3	0	0
Native herbalist	3	0	0
If practising in Zululand only	1	0	0
Native labour licences (see Chapter XXVI).			
Newspaper publishers—			
For every daily newspaper published	10	0	0
For newspapers issued at intervals not exceeding seven days	5	0	0
*Notary	3	0	0
*Ostrich feather buyer	10	0	0
*Patent and proprietary medicines (not including Dutch medicines), general dealers only, to sell	2	0	0
*Pawnbroker	15	0	0
*Pedlar—			
Outside urban area	2	0	0
Within urban area	1	0	0
*Produce (fresh) dealer	2	0	0
*Quantity surveyor	10	0	0
*Restaurant, refreshment, or tearoom keeper	5	0	0
*Speculator in futures	25	0	0
*Stock and share broker	10	0	0
*Temporary or special licence (for each day)	0	10	0

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).
† Issued by the Commissioner of Customs and Excise, Pretoria.
‡ Increased to 12s. 6d. from 1st January, 1927.
§ Issued by the Chief Inspector of Explosives, Johannesburg.

TRANSVAAL PROVINCE.

	£	s.	d.
*Advertising agent or advertising contractor	5	0	0
*Aerated or mineral water manufacturer	10	0	0
*Aerated or mineral water dealer	3	0	0
Agent of foreign firm—			
Yearly	75	0	0
For period of three months	50	0	0
(An agent who has been ordinarily resident within the Union for three years immediately prior to taking out such licence is charged half the rates specified, and such agent who is the bona fide employee of a duly licensed agent of a foreign firm is charged £15.)			
*Apothecary	5	0	0
(This licence is not required by a medical practitioner dispensing his own prescriptions.)			
*Accountant	10	0	0
*Actuary	10	0	0
*Advocate	10	0	0
*Architect	10	0	0
*Attorney	10	0	0
*Appraiser or assessor	5	0	0
*Auctioneer—			
For an entire Province	20	0	0
For a particular magisterial district only	10	0	0
Arms and ammunition (dealer)	5	0	0
*Baker	10	0	0
*Bagatelle table keeper (for each table)	4	0	0
*Billiard table keeper (for each table). (If not on licensed premises, £3.)	12	0	0
Banker or banking institution (in respect of each branch)	20	0	0
*Boarding- and lodging-house keeper.	5	0	0
*Board of executors or trust company—			
Head office	50	0	0
Each branch office	25	0	0
*Broker or agent	5	0	0
Bookmaker	5	0	0
†Bonded or bonding warehouse	20	0	0
Boiler (for each boiler)	0	10	0
*Buchu buyer	1	0	0
*Butcher—			
Wholesale	75	0	0
Retail—			
In urban area	7	10	0
In rural area	2	10	0
*Canvasser for sale of shares or land.	50	0	0
Company (under Act No. 46 of 1926): minimum	1	0	0
(In addition, 5s. for every £1,000 or part of £1,000 of subscribed capital.)			
*Consulting engineer (any branch of engineering)	10	0	0
*Conveyancer	3	0	0
Commercial traveller—			
Wholesale	15	0	0
Retail	7	10	0
*Dealer or speculator in live stock or produce	10	0	0
*Dentist	10	0	0
Diamond broker	10	0	0
Diamond dealer	20	0	0
Distiller's licence (each still)	1	0	0
Dog licence	0	10	0
Greyhound	5	0	0
(One watch dog outside a municipality, free.)			
*Eating-house keeper	5	0	0
‡Explosives—			
Manufacture of	50	0	0
Magazine	5	0	0
Fireworks, for sale of, in respect of each shop	1	0	0
Firearms—			
Rifles (permanent)	0	10	0
Other (permanent)	0	5	0
Fishing (for using net), per season	0	5	0
Game—			
Dealer (every licensed market master or butcher selling game)	3	0	0
Shooting—			
Open species, per season	1	10	0
Open species per month	0	15	0
Small protected species (for persons duly authorized by owner according to number of head per permit of specified species)	0	5 to 2	0 0
Big—			
(i) For registered owner or lessee including manager and overseer of farms	0	10	0
(ii) For persons duly authorized by owner, according to number of head per permit of open species	0	10 to 5	0 0
*General dealer—			
Minimum	5	0	0
Maximum	100	0	0
(For fuller details, see under same heading, Cape Province, above.)			
*Hawker—			
Outside urban area	10	0	0
Within urban area	5	0	0
Trading in certain specified products of the Union only	1	0	0
For each additional vehicle, pack animal, or carrier	1	0	0
Insurance company	50	0	0
From 1st August	25	0	0
(Each person transacting insurance business in the Union on behalf of brokers or underwriters at Lloyds, or on behalf of members of similar associations of individual underwriters must take out a licence.)			
*Interpreter or translator	2	10	0
Jeweller	1	0	0
Liquor licences—			
Wholesale	50	0	0
Hotel	25	0	0
Hotel (village or roadside)	15	0	0
Restaurant or café	25	0	0
Malt	25	0	0
Bottle	50	0	0
General retail (in municipalities of not more than 400 white male persons over the age of sixteen years)	50	0	0
General retail	100	0	0
Club	50	0	0
Theatre	50	0	0
Temporary (per diem)	1	0	0
Railway employees (per mensem).	2	0	0
Canteen	No charge		
Midnight privileges (half-year)—			
Restaurant liquor licence	6	5	0
General retail liquor licence	25	0	0
General (village) liquor licence	12	10	0
(The holder of a general retail licence may hold an hotel or café liquor licence for the same period without the payment of any sum in addition to the amount paid by him in respect of his general retail liquor licence.)			
*Land surveyor	5	0	0
*Law agent	7	10	0
*Laundry—			
Steam	10	0	0
Other	5	0	0
*Medical practitioner	10	0	0
*Miller	5	0	0
*Motor garage	3	0	0

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).
† Issued by the Commissioner of Customs and Excise, Pretoria.
‡ Issued by the Chief Inspector of Explosives, Johannesburg.

TRANSVAAL—*continued.*

	£	s.	d.
Native labour regulations (Act No. 15 of 1911) applicable throughout the Union are as follows:—			
(*a*) For a district labour agent's licence	6	0	0
(*b*) For a Provincial labour agent's licence	25	0	0
(*c*) For a Union labour agent's licence	50	0	0
(*d*) For a compound manager's licence	1	0	0
(*e*) For a conductor's licence	1	0	0
(*f*) For an employer's recruiting licence, applicable to any one district	1	0	0
Newspaper publishers—			
For every daily newspaper published	10	0	0
For newspapers issued at intervals not exceeding seven days	5	0	0
*Notary	3	0	0
*Ostrich feather buyer	10	0	0
*Patent or proprietary medicines (not including Dutch medicines), general dealers only, to sell	2	0	0
*Pawnbroker	15	0	0
*Pedlar—			
Outside urban area	2	0	0
Within urban area	1	0	0
*Produce (fresh) dealer	2	0	0
*Quantity surveyor	10	0	0
*Restaurant, refreshment or tea room keeper	5	0	0
*Speculator in futures	25	0	0
*Stock and share broker	10	0	0
*Temporary or special licence (for each day)	0	10	0

ORANGE FREE STATE.

	£	s.	d.
*Advertising agent or advertising contractor	5	0	0
*Aerated or mineral water manufacturer	10	0	0
*Aerated or mineral water dealer	3	0	0
Agent of foreign firm—			
Yearly	75	0	0
For period of three months	50	0	0
(An agent who has been ordinarily resident within the Union for three years immediately prior to taking out such licence is charged half the rates specified and such agent who is the *bona fide* employee of a duly licensed agent of a foreign firm is charged £15.)			
*Apothecary	5	0	0
(This licence is not required by a medical practitioner dispensing his own prescriptions.)			
*Accountant	10	0	0
*Actuary	10	0	0
*Advocate	10	0	0
*Architect	10	0	0
*Attorney	10	0	0
*Appraiser or assessor	5	0	0
*Auctioneer—			
For an entire Province	20	0	0
For a particular magisterial district only	10	0	0
Arms and ammunition dealer	20	0	0
*Baker	5	0	0
*Bagatelle table keeper (for each table)	4	0	0
*Billiard table keeper (for each table). (If not on licensed premises £5.)	12	0	0
Banker or banking institution (in respect of each branch)	20	0	0
*Boarding- or lodging-house keeper	5	0	0
*Board of executors or trust company—			
Head office	50	0	0
Each branch office	25	0	0
*Broker or agent	5	0	0
Bookmaker	5	0	0
*Buchu buyer	1	0	0
*Butcher—			
Wholesale	75	0	0
Retail—			
In urban area	7	10	0
In rural area	2	10	0
Betting room	25	0	0
After 30th June	12	10	0
Boxing, wrestling, or endurance competitions (professional), per day or part thereof	4	0	0
*Canvasser for sale of shares or land	50	0	0
Company (under Act No. 46 of 1926): minimum	1	0	0
(In addition, 5s. for every £1,000 or part of £1,000 of subscribed capital.)			
*Consulting engineer (any branch of engineering)	10	0	0
*Conveyancer	3	0	0
Commercial traveller—			
Wholesale	15	0	0
Retail	7	10	0
*Dealer or speculator in live stock or produce	10	0	0
*Dentist	10	0	0
Diamond broker or factor	10	0	0
Diamond dealer	25	0	0
Dog licence	0	10	0
Greyhound	5	0	0
*Eating-house keeper	5	0	0
†Explosives—			
To manufacture	50	0	0
Magazine	5	0	0
Firearms—			
Rifle (permanent)	0	10	0
Other (permanent)	0	5	0
Fireworks, for the sale of, in respect of each shop	1	0	0
Game—			
To kill, for one season	1	10	0
To kill, for two weeks	0	10	0
To sell, for any open season	0	5	0

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).
† Issued by the Chief Inspector of Explosives, Johannesburg.

ORANGE FREE STATE—*continued.*

Entertainment Licences.†

The following licences are now payable for a theatre, concert hall, music hall, bioscope, skating rink, circus, travelling show, or other like entertainment :—

Where the Price Charged for Admission.	Per Performance.			Per Month.		
	If seating accommodation does not exceed 250.	If seating accommodation exceeds 250 and does not exceed 500.	If seating accommodation exceeds 500.	If seating accommodation does not exceed 250.	If seating accommodation exceeds 250 and does not exceed 500.	If seating accommodation exceeds 500.
	s. d.	s. d.	s. d.	£ s.	£	£
Does not exceed 1s.....	5 0	12 6	15 0	5 0	12	15
Does not exceed 2s.....	6 0	15 0	17 6	6 0	15	18
Does not exceed 5s.....	7 6	17 6	20 0	7 10	18	21
Exceeds 5s.....	10 0	25 0	30 0	10 0	21	24

† See also Chapter XXII for *Entertainment Taxes.*

Where the Price Charged for Admission.	Per Three Months.			Per Six Months		
	If seating accommodation does not exceed 250.	If seating accommodation exceeds 250 and does not exceed 500.	If seating accommodation exceeds 500.	If seating accommodation does not exceed 250.	If seating accommodation exceeds 250 and does not exceed 500.	If seating accommodation exceeds 500.
	£ s.	£	£	£	£	£
Does not exceed 1s.....	7 10	18	22	10	24	30
Does not exceed 2s.....	9 0	22	26	12	30	36
Does not exceed 5s.....	11 0	26	30	15	36	42
Exceeds 5s.....	15 0	30	34	20	42	48

Where the seating capacity, owing to the nature of the entertainment or the place in which it is given, cannot be readily ascertained, the licence payable is 10s. per day or part of a day ; £2. 10s. per week ; £7. 10s. per month.

	£	s.	d.
*General dealer—			
Minimum.....	5	0	0
Maximum.....	100	0	0
(For fuller details, see under same heading, Cape Province, above.)			
*Hawker—			
Outside urban area.....	10	0	0
Within urban area.....	5	0	0
Trading in certain specified products of the Union only...	1	0	0
For each additional vehicle, pack animal, or carrier.....	1	0	0
Insurance company.....	50	0	0
From 1st August.....	25	0	0
(Each person transacting insurance business in the Union on behalf of brokers or underwriters at Lloyds, or on behalf of members of similar associations of individual underwriters, must take out a licence.)			
*Interpreter or translator.....	2	10	0
*Land surveyor.....	5	0	0
*Law agent.....	7	10	0
*Laundry—			
Steam.....	10	0	0
Other.....	5	0	0
Liquor licences—			
Wholesale liquor licence.....	75	0	0
In addition, where gross receipts exceed £5,000 : £1 for every £1,000 or part thereof of gross receipts exceeding £5,000 and not exceeding £15,000, and £2 for every £1,000 or part thereof of gross receipts exceeding £15,000 ; maximum licence, £150.			
Bottle liquor licence.....	75	0	0
Additions as above.			
Retail liquor licence.....	90	0	0
In addition, where gross receipts exceed £3,000 : £3 for every £1,000 or part thereof of gross receipts exceeding £3,000 and not exceeding £5,000, and £5 for every £1,000 or part thereof of gross receipts exceeding £5,000 ; maximum licence, £150.			
Restaurant or café liquor licence..	50	0	0
Club liquor licence.....	40	0	0
Proprietary club liquor licence....	80	0	0
Theatre liquor licence.....	50	0	0
Distiller's liquor licence.....	20	0	0
Every private still used by persons not licensed distillers.....	5	0	0
Brewer's liquor licence.....	30	0	0
In addition, where gross receipts exceed £5,000 : £1 for every £1,000 or part thereof of gross receipts exceeding £5,000 and not exceeding £15,000, and £2 for every £1,000 or part thereof of gross receipts exceeding £15,000 ; maximum licence, £105.			
Temporary liquor licence, per diem	1	0	0
Brewer's bottle licence.....	15	0	0
Distiller's licence (for private use)	1	0	0

* Second Schedule, Act No. 32 of 1925 (see text, paragraph 8 above).

ORANGE FREE STATE—*continued.*

	£	s.	d.
*Medical practitioner	10	0	0
*Miller	5	0	0
*Motor garage	3	0	0
Newspaper publishers—			
For every daily newspaper published	10	0	0
For newspapers issued at intervals not exceeding seven days	5	0	0
*Notary	3	0	0
*Ostrich feather buyer	10	0	0
*Patent or proprietary medicines (not including Dutch medicines), general dealers only, to sell	2	0	0
*Pawnbroker	15	0	0
*Pedlar—			
Outside urban area	2	0	0
Within urban area	1	0	0
*Produce (fresh) dealer	2	0	0
*Quantity surveyor	10	0	0
*Restaurant, refreshment or tea room keeper	5	0	0
*Speculator in futures	25	0	0
*Stock and share broker	10	0	0
*Temporary or special licence (for each day)	0	10	0

* Second Schedule, Act No. 32 of 1925 (see text paragraph 8 above).

UNION.

The annual payment in respect of all railway refreshment cars is one total sum of £500.

The annual payment in respect of each railway refreshment room in which intoxicating liquor is sold is such sum as is payable in respect of a bar licence in the district in which such refreshment room is situated.

The annual payment in respect of each railway refreshment room where intoxicating liquor is not sold is such sum as is payable for similar privileges in the district in which such refreshment room is situated.

The Railways and Harbours Administration and the Departments of Customs and Mines also control the issue of certain licences.

2. **Licences Issued.**—Particulars are given in the tables below as to the number of licences issued and the amount paid for licences in each Province for a period of years, distinguishing between licences reserved to the Union Government, licences assigned to Provinces, and licences transferred to Provinces. In making use of information contained in the tables it should be noted that the licence laws are neither general nor uniform throughout the Union. In consequence, certain trades or professions may not be liable to licence duty in certain Provinces and liable in others under existing legislation.

(i) (*a*) **NUMBER OF LICENCES RESERVED TO THE UNION GOVERNMENT, 1918–19 TO 1923–24.**

Description of Licence.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	Number.	Number.	Number.	Number.	Number.	Number.
Agent or representative of foreign firm	1,393	1,961	1,976	2,017	2,191	2,277
Arms, rifle and other (to carry)	4,523	8,934	10,081	7,454	6,718	6,023
Banker	166	248	236	231	184	188
Beer (Native)	960	1,220	1,424	1,119	980	1,408
Boiler	1,133	988	1,013	883	1,848	1,492
Brewer	4	4	4	4	4	4
Building society or mutual assurance company	6	11	11	11	11	20
Commercial traveller	422	536	610	591	581	608
Compounder or rectifier of spirits	12	15	13	24	21	30
Dealer—						
Arms and ammunition	159	227	252	263	262	251
Fireworks	40	63	80	87	92	131
Gunpowder	280	350	380	401	440	416
Diamond broker			22	9	6	—
Diamond cutter			—	—	—	—
Diamond dealer	508	635	118	141	190	767
Diamond dealer (endorsement on licence)			453	263	89	142
Distiller (general)	2,276	2,193	2,454	2,783	2,775	2,708
*Electric power	2	2	3	2	—	—
Insurance company	199	194	185	216	214	94
Jeweller	52	61	54	6	10	55
Joint-stock company	1,480	1,665	1,790	1,877	2,076	1,961
Native compound manager	281	294	286	270	269	288
Native labour agent, conductor, or employer	1,473	1,393	1,494	1,070	1,647	1,413
Newspaper publisher	19	22	24	21	18	20
Recovery works (dealer in unwrought gold)	43	23	41	64	62	61
Stillkeeper or Still maker	18	15	15	19	19	14
Vinegar maker	12	12	11	10	10	10
TOTAL	15,461	21,066	23,030	19,836	20,717	20,381

* Abolished under Act No. 42, 1922.

(i) (*b*) REVENUE FROM LICENCES RESERVED TO THE UNION GOVERNMENT. 1918–19 TO 1923–24.

Description of Licence.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Agent or representative of foreign firm	16,105	24,349	24,923	25,835	26,978	27,783
Arms, rifle and other (to carry)	1,338	2,666	3,229	2,463	2,156	1,889
Banker	9,857	12,526	13,507	13,005	11,167	10,966
Beer (Native)	960	1,220	1,424	1,119	980	1,415
Boiler	1,534	1,497	1,660	1,525	1,656	1,436
Brewer	4	4	4	4	4	4
Building society or mutual assurance company	113	215	225	208	255	323
Commercial traveller	3,225	4,160	4,676	4,703	4,740	4,817
Compounder or rectifier of spirits	120	145	130	205	190	212
Dealer—						
Arms and ammunition	1,683	2,634	2,804	2,569	2,521	2,548
Fireworks	11	22	24	28	29	48
Gunpowder	1,329	1,659	1,742	1,783	1,886	1,770
Diamond broker	} 2,637	3,321	459	110	81	—
Diamond cutter			—	—	—	—
Diamond dealer						
Diamond dealer (endorsement on licence)			2,088 467	2,823 284	3,066 93	3,511 143
Distiller (general)	436	425	430	557	464	420
*Electric power	10	13	18	10	—	—
Insurance company	24,144	25,313	25,327	28,180	27,153	5,513
Jeweller	46	52	51	6	10	47
Joint stock company	36,194	41,167	45,062	45,478	61,905	48,861
Native compound manager	263	276	266	255	253	278
Native labour agent, conductor, or employer	4,956	4,140	4,579	3,624	4,514	4,306
Newspaper publisher	120	128	130	125	111	120
Recovery works (dealer in unwrought gold)	524	349	464	622	717	640
Stillkeeper or still maker	32	17	17	19	21	17
Vinegar maker	12	12	11	10	10	10
Penalties (general)	206	120	252	268	408	558
TOTAL £	105,859	126,430	133,969	135,818	151,368	117,635

* Abolished under Act No. 42, 1922.

(ii) (a) NUMBER OF LICENCES ASSIGNED AND TRANSFERRED TO PROVINCES, 1918–19 TO 1923–24.

Description.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	Number.	Number.	Number.	Number.	Number.	Number.
Accountant or auditor	—	124	288	280	171	219
*Advertising agent or contractor	—	—	—	—	11	3
Advocate or attorney	458	511	581	1,128	791	898
Aerated or mineral water dealer (to manufacture and supply)	1,737	1,963	2,025	1,987	2,099	2,182
Agent or broker	1,986	2,061	1,961	1,971	2,009	1,775
Apothecary, chemist, or druggist	274	309	393	443	545	460
Appraiser or valuer	54	52	48	54	59	58
Architect	36	97	128	164	105	98
Auctioneer (general)	1,009	1,177	1,028	1,016	1,149	1,033
Bagatelle and billiard table keeper (for public use)	822	893	883	823	730	663
Baker	778	845	904	1,044	1,146	1,139
Boarding-house keeper	385	335	785	1,021	708	761
Board of executors	23	27	43	84	38	27
Bookmaker	—	—	189	185	36	51
Buchu (to buy)	38	47	39	35	37	40
Bulbs and wild flowers (to pick)	169	281	149	320	206	233
Butcher	1,979	2,159	2,535	3,062	3,402	3,319

* Prior to 1922–23 these licences were grouped under "Dealer—General."

(ii) (*a*) NUMBER OF LICENCES ASSIGNED AND TRANSFERRED TO PROVINCES, 1918–19 TO 1923–24—*continued*.

Description.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	Number.	Number.	Number.	Number.	Number.	Number.
*Café or restaurant	—	—	—	—	264	305
Canvasser (for sale of land or shares)	17	19	11	7	20	12
Conveyancer	95	96	111	289	296	316
Dealer—						
*Fish	—	—	—	—	64	—
Fresh produce, i.e. fruit, vegetables, etc.	1,002	2,148	2,328	2,331	2,855	3,146
Game	61	86	171	90	104	110
General	32,311	34,357	36,884	40,583	39,040	37,044
*Gunpowder	—	—	—	—	1	—
Live stock	30	15	12	4	48	79
†Meat (not butchers)	—	—	—	27	2	—
Patent and proprietary medicines (not including "Dutch" medicines)	2,990	3,093	3,184	3,095	3,149	3,126
Poisons	60	75	40	38	38	28
*Retail	—	—	—	—	3,657	1,712+3,524
Tobacco (retail)	778	820	859	956	1,719	1,240+12
Wholesale (general)	} 840	880	933	1,111	{ 364	12+ 490
Wholesale (produce)					{ 138	161
Wholesale and retail					{ 565	529
Dentist	88	141	223	233	189	243
Dog	148,452	153,591	162,538	169,012	136,216	140,388
Eating-house (Indian)	13	40	21	20	13	14
Eating-house (Kaffir)	237	255	245	262	295	328
Engineer	27	26	40	38	30	30
Entertainment (including theatre, music hall, etc.)	991	613	741	784	579	775+ 63
Ferry (Griqualand West)	16	10	9	19	10	8
Fishing boat	1,204	996	848	894	975	982
Fishing (to fish)	542	1,236	1,320	1,236	1,505	456
Game (to hunt and shoot)	12,711	14,191	15,703	11,301	9,431	9,547
Hawker—						
General	6,338	6,500	7,659	8,874	9,735	7,427+1,369
‡Raw meat	—	—	—	—	380	512
Importer	1,312	1,657	2,221	2,203	1,927	2,512
Interpreter or translator	8	5	3	5	4	4
Land surveyor	69	119	159	175	114	112
Laundry	152	149	195	201	46	48
Law agent	—	—	45	58	32	21
Liquor—						
Bar	52	110	112	53	92	120
Beer (Native)	27	31	29	34	36	32
Bottle store	612	631	583	614	594	641
Club (general)	166	153	170	147	173	149
Colonial light wine (retail)	2	2	3	1	2	4
Hotel (general)	} 680	1,144	740	426	{ 381	782
Hotel (native territories)					{ 62	—
Malt	187	148	41	37	35	40
§Midnight privileges (general)	—	—	343	243	492	374
Restaurant or café	496	472	494	23	38	43
Retail (general)	2,214	1,321	1,316	1,821	1,536	1,437
Temporary	651	1,206	1,183	1,180	1,698	1,483
Theatre	26	17	15	16	14	12
Wholesale	326	331	293	294	285	285
Manufacturer	393	378	348	437	512	591
*Market building	—	—	—	—	3	3
*Market stall	—	—	—	—	104	115
Medical practitioner (including native)	2,175	2,601	3,114	2,911	2,534	2,769
Miller	113	121	117	117	126	126
Notary	254	247	238	216	223	246
Ostrich feather (to buy)	754	1,319	741	298	441	405
Oyster (to collect)	530	584	409	688	906	775
Passenger conveyance	69	120	112	120	175	260
Pawnbroker	16	15	18	14	19	19
Pedlar	190	247	225	419	921	887
Refreshment room (non-liquor)	295	247	277	327	308	783
Speculator (live stock and produce)	—	—	690	436	781	728

* Prior to 1922–23 these licences were grouped under "Dealer—General."
† Prior to 1921–22 these licences were grouped under "Dealer—General."
‡ Prior to 1922–23 these licences were grouped under "Hawker—General."
§ Prior to 1920–21 these licences were grouped under "Retail—General."

(ii) (*a*) NUMBER OF LICENCES ASSIGNED AND TRANSFERRED TO PROVINCES, 1918–19 TO 1923–24—*continued.*

Description.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	Number.	Number.	Number.	Number.	Number.	Number.
Stationer or bookseller	2	2	3	2	3	7
Stock and share broker	19	42	22	17	18	16
*Trader or hawker—Zululand	—	—	—	—	20	27
†Trawling vessel	—	—	—	—	5	6
Whaling	5	5	6	—	8	12
White labour registry	37	48	35	26	33	30
TOTAL	230,383	243,541	260,159	268,380	239,625	243,152

* Prior to 1922–23 these licences were grouped under "Dealer—General."
† Prior to 1922–23 these licences were grouped under "Fishing—Boat.'

NOTE.—The above figures include, in respect to Natal, certain municipal trading and liquor licences, *vide* section 14 of the *Financial Relations Act*, 1913.

(ii) (*b*) **REVENUE FROM LICENCES ASSIGNED AND TRANSFERRED TO PROVINCES, 1918–19 TO 1923–24.**

Description.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Accountant or auditor	—	620	2,360	2,019	1,077	1,345
*Advertising agent or contractor	—	—	—	—	183	7
Advocate or attorney	2,706	2,471	4,548	9,132	4,858	5,536
Aerated or mineral water dealer (to manufacture and supply)	2,274	2,480	3,298	3,684	3,733	3,743
Agent or broker	4,436	8,567	11,247	11,522	11,220	11,446
Apothecary, chemist, or druggist	1,903	2,027	3,453	4,033	5,637	4,593
Appraiser or valuer	208	204	185	205	232	222
Architect	147	446	867	928	572	539
Auctioneer (general)	7,855	8,808	9,574	9,403	10,590	3,668+5,950
Bagatelle or billiard table keeper (for public use)	7,608	7,856	8,711	9,254	8,227	7,843
Baker	3,107	3,306	4,001	5,982	7,754	5,846
Boarding-house keeper	381	337	4,601	8,296	12,609	11,534
Board of executors	1,010	1,185	1,676	4,557	2,199	1,525
Bookmaker	—	—	944	923	201	305
Buchu (to buy)	38	47	48	35	37	40
Bulbs and wild flowers (to pick)	42	76	37	79	52	58
Butcher	8,471	9,008	10,450	14,930	17,314	16,051
*Café or restaurant	—	—	—	—	972	1,118
Canvasser (for sale of land or shares)	75	95	324	145	800	268
Conveyancer	258	248	368	686	733	725
Dealer—						
*Fish	—	—	—	—	17	—
Fresh produce, i.e. fruit, vegetables, etc.	760	1,102	1,565	2,397	3,280	3,314
Game	178	156	212	184	207	316
General	101,736	260,474	341,819	410,222	385,419	364,964
*Gunpowder	—	—	—	—	3	—
Live stock	112	65	50	18	688	1,158
†Meat (not butchers)	—	—	—	59	8	—
Patent and proprietary medicines (not including "Dutch" medicines)	2,931	3,008	3,115	3,038	3,071	3,050
Poisons	115	97	40	38	38	28
*Retail	—	—	—	—	16,238	19,599
Tobacco (retail)	1,514	1,719	1,872	2,132	4,860	3,307
Wholesale (general)	7,289	13,801	15,242	11,274	3,497	3,180
Wholesale (produce)					2,573	3,160
Wholesale and Retail					6,270	5,766

* Prior to 1922–23 these licences were grouped under "Dealer—General."
† Prior to 1921–22 these licences were grouped under "Dealer—General."

(ii) (*b*) REVENUE FROM LICENCES ASSIGNED AND TRANSFERRED TO PROVINCES, 1918-19 TO 1923-24—*continued.*

Description.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Dentist	361	716	1,988	2.011	1,348	1,691
Dog	48,050	49,454	54,268	63,950	72,607	70,241
Eating-house (Indian)	36	62	54	50	32	41
Eating-house (Kaffir)	892	956	939	998	1,085	1,280
Engineer	118	116	243	179	128	108
Entertainment (including theatre, music hall, etc.)	2,396	1,119	1,538	1,865	1,631	1,796
Ferry (Griqualand West)	93	90	90	133	100	100
Fishing boat	1,428	113	305	405	419	377
Fishing (to fish)	266	1,457	1,629	1,416	1,749	
Game (to hunt and shoot)	12,452	13,660	17,109	14,707	14,918	361
Hawker—						10,861
General	6,314	7,167	7,272	7,771	9,024	8,288
*Raw Meat	—	—	—	—	328	458
Importer	25,380	42,843	90,109	92,779	86,353	103,711
Interpreter or translator	35	12	8	12	10	9
Land surveyor	348	599	849	975	638	677
Laundry	157	148	436	494	288	290
Law agent	—	—	227	387	232	150
Liquor—						
Bar	1,465	3,367	3,339	1,419	2,646	3,081
Beer (Native)	142	175	170	195	215	158
Bottle store	19,693	21,191	19,997	20,389	20.885	25,215
Club (general)	5,762	4,860	6,003	5,275	6,803	6,016
Colonial light wine (retail)	10	10	15	5	10	193
Hotel (general)	10,662	23,183	17,711	7,423	5,550	14,953
Hotel (native territories)					1,425	—
Malt	1,427	1,252	673	663	627	707
†Midnight privileges (general)	—	—	6,776	5,712	8,525	11,217
Restaurant or café	530	484	523	76	100	94
Retail (general)	83,689	69,164	66,701	79,829	76,114	77,420
Temporary	630	1,280	1,171	1,101	1,951	1,833
Theatre	564	520	442	538	522	432
Transfers, removals, etc.	672	483	568	738	1,575	1,407
Wholesale	10,282	11,736	10,552	11,192	11,077	13,571
Manufacturer	1,175	1,215	1,173	1,385	1,314	1,367
‡Market building	—	—	—	—	22	26
‡Market stall	—	—	—	—	63	63
Medical practitioner (including native)	6,483	8,151	11,963	13,207	9,774	10,557
Miller	391	426	497	483	486	481
Notary	718	603	575	473	481	511
Ostrich feather (to buy)	2,278	3,916	3,209	1,307	1,285	1,170
Oyster (to collect)	34	34	24	37	52	49
Passenger conveyance	69	120	112	117	175	273
Pawnbroker	160	150	186	140	186	195
Pedlar	166	224	209	346	728	705
Refreshment room (non-liquor)	787	670	783	888	824	2,025
Speculator (live stock and produce)	—	—	6,702	4,654	8,115	7,458
Stationer or bookseller	6	6	7	6	11	19
Stock and share broker	185	436	208	184	155	152
‡Trader or hawker—Zululand	—	—	—	—	103	116
Transfers, removals, and penalties	698	669	843	652	3,363	2,708+20 30
§Trawling vessel	—	—	—	—	25	600
Whaling	600	650	628	—	550	53
White labour registry	59	60	60	50	55	
TOTALS.....£	402,817	601,750	769,491	861,791	871,851	875,513

* Prior to 1922-23 these licences were grouped under "Hawker—General."
† Prior to 1920-21 these licences were grouped under "Retail—General."
‡ Prior to 1922-23 these licences were grouped under "Dealer—General."
§ Prior to 1922-23 these licences were grouped under "Fishing—Boat."

NOTE.—The foregoing figures include, in respect to Natal, certain municipal trading liquor licences, *vide* section 14 of the *Financial Relations Act*, 1913.

(iii) LICENCES (RESERVED TO THE UNION GOVERNMENT), ISSUED IN THE SEVERAL PROVINCES DURING THE FINANCIAL YEAR 1923-24.

Description of Licence.	Cape.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Agent or representative of foreign firm	547	16,672	—	—	629	5,060	1,101	6,051	2,277	27,783
Arms, rifle and other (to carry)	—	—	—	—	4,783	1,483	1,240	406	6,023	1,889
Banker	1	120	2	200	8	3,445	177	7,201	188	10,966
Beer (Native) (to brew and hold a party)	—	—	—	—	—	—	1,408	1,415	1,408	1,415
Boiler	—	—	—	—	1,492	1,436	—	—	1,492	1,436
Brewer	4	4	—	—	—	—	—	—	4	4
Building society or mutual assurance company	20	323	—	—	—	—	—	—	20	323
Commercial traveller	176	866	428	3,931	1	5	3	15	608	4,817
Compounder or rectifier of spirits	30	212	—	—	—	—	—	—	30	212
Dealer—										
Arms and ammunition	41	182	33	165	124	1,249	53	952	251	2,548
Fireworks	2	5	—	—	—	—	129	43	131	48
Gunpowder	416	1,770	—	—	—	—	—	—	416	1,770
Diamond broker	—	—	—	—	—	—	—	—	—	—
Diamond dealer	80	1,864	—	—	687	1,647	—	—	767	3,511
Endorsement on licence	142	143	—	—	—	—	—	—	142	143
Distiller (general)	2,707	419	—	—	1	1	—	—	2,708	420
Insurance company	56	3,463	1	30	31	1,550	6	470	94	5,513
Jeweller	—	—	—	—	55	47	—	—	55	47
Joint-stock company	1,297	35,045	664	13,816	—	—	—	—	1,961	48,861
Native compound manager	—	—	—	—	288	278	—	—	288	278
Native labour agent, conductor, or employer	379	384	166	166	848	3,736	20	20	1,413	4,306
Newspaper publisher	—	—	20	120	—	—	—	—	20	120
Recovery works (dealer in unwrought gold)	—	—	—	—	61	640	—	—	61	640
Still keeper or still-maker	14	17	—	—	—	—	—	—	14	17
Vinegar maker	10	10	—	—	—	—	—	—	10	10
Penalties (general)	—	140	—	205	—	176	—	37	—	558
TOTAL	5,922	61,639	1,314	18,633	9,008	20,753	4,137	16,610	20,381	117,635

(iv) LICENCES (TRANSFERRED AND ASSIGNED TO PROVINCES) ISSUED IN THE SEVERAL PROVINCES DURING THE FINANCIAL YEAR 1923-24.

Description of Licence.	Cape.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Accountant or auditor	—	—	—	—	160	800	59	545	219	1,345
Advertising agent or contractor	3	7	—	—	—	—	—	—	3	7
Advocate or attorney	—	—	06	918	475	2,395	217	2,223	898	5,536
Aerated or mineral water (to manufacture and supply)	1,961	3,324	—	—	—	—	221	419	2,182	3,743
Agent or broker	478	4,720	293	1,624	922	4,369	82	733	1,775	11,446
Apothecary, chemist, or druggist	404	3,840	15	68	—	—	41	685	460	4,593
Appraiser or valuer	—	—	58	222	—	—	—	—	58	222
Architect	—	—	27	133	61	306	10	100	98	539
Auctioneer (general)	432	5,950	102	790	317	1,358	182	1,520	1,033	9,618
Bagatelle or billiard table keeper (for public use)	420	5,074	124	1,108*	20	154	99	1,507	663	7,843
Baker	859	4,598	166	465	—	—	114	783	1,139	5,846
Boarding or lodging house keeper	665	10,589	—	—	—	—	96	945	761	11,534
Board of executors	—	—	—	—	17	850	10	675	27	1,525
Bookmaker	44	220	—	—	—	—	7	85	51	305
Buchu (to buy)	40	40	—	—	—	—	—	—	40	40

* Outside municipalities only.

(iv) LICENCES (TRANSFERRED AND ASSIGNED TO PROVINCES) ISSUED IN THE SEVERAL PROVINCES DURING THE FINANCIAL YEAR 1923-24—*contd.*

Description of Licence.	Cape.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Bulbs and wild flowers (to pick)	233	58	—	—	—	—	—	—	233	58
Butcher	2,548	12,132	501	1,952	—	—	270	1,967	3,319	16,051
Café or restaurant	—	—	—	—	—	—	305	1,118	305	1,118
Canvasser (for sale of land or shares)	10	188	—	—	—	—	2	75	12	263
Conveyancer	—	—	140	273	—	—	176	452	316	725
Dealer—										
Fish	—	—	—	—	—	—	—	—	—	—
Fresh produce	3,023	2,786	—	—	—	—	123	528	3,146	3,314
Game	41	181	—	—	43	129	26	6	110	316
General	18,096	203,599	—	—	17,027	128,881	1,921	32,484	37,044	364,964
Gunpowder	—	—	—	—	—	—	—	—	—	—
Live stock	—	—	—	—	—	—	79	1,158	79	1,158
Meat (not butchers)	—	—	—	—	—	—	—	—	—	—
Patent and proprietary medicines (not including "Dutch" medicines)	3,126	3,050	—	—	—	—	—	—	3,126	3,050
Poisons	28	28	—	—	—	—	—	—	28	28
Retail	—	—	5,236	19,599	—	—	—	—	5,236	19,599
Retail and wholesale	—	—	529	5,766	—	—	—	—	529	5,766
Tobacco (retail)	701	1,913	476	1,186	—	—	75	208	1,252	3,307
Wholesale (general)	—	—	502	3,180	—	—	—	—	502	3,180
Wholesale (produce)	—	—	—	—	—	—	161	3,160	161	3,160
Dentist	—	—	50	239	145	771	48	681	243	1,691
Dog	—	—	83,055	41,532	30,921	17,530	26,712	11,179	140,688	70,241
Eating-house—										
Indian	—	—	14	41	—	—	—	—	14	41
Kaffir	—	—	271	1,179	57*	101	—	—	328	1,280
Engineer	—	—	30	108	—	—	—	—	30	108
Entertainment (including theatre, music hall, etc.)	—	—	64	502	—	—	774	1,294	838	1,796
Ferry (Griqualand West)	8	100	—	—	—	—	—	—	8	100
Fishing—										
Boat	982	377	—	—	—	—	—	—	982	377
To fish	304	316	115	31	6	2	31	12	456	361
Game (to hunt and shoot)	4,116	4,264	930	962	4,141	5,311	360	324	9,547	10,861
Hawker (general)	4,710	2,560	2,350	2,695	1,700*	2,672	36	361	8,796	8,288
Raw meat	—	—	512	458	—	—	—	—	512	458
Importer	2,512	103,711	—	—	—	—	—	—	2,512	103,711
Interpreter or translator	—	—	4	9	—	—	—	—	4	9
Land surveyor	—	—	39	176	44	226	29	275	112	677
Laundry	48	290	—	—	—	—	—	—	48	290
Law agent	—	—	—	—	—	—	21	150	21	150
Liquor—										
Bar	—	—	120	3,081	—	—	—	—	120	3,081
Beer (Native)	—	—	32	158	—	—	—	—	32	158
Bottle store	207	7,738	78	1,342	269	12,529	87	3,606	641	25,215
Club (general)	47	2,153	20	523	60	2,755	22	585	149	6,016
Colonial light wine (retail)	4	193	—	—	—	—	—	—	4	193
Hotel—										
General	257	8,920	255	3,394	313	2,639	—	—	825	14,953
Native territories	—	—	—	—	—	—	—	—	—	—
Malt	—	—	—	—	40	707	—	—	40	707
Midnight privileges	143	3,962	—	—	231	7,255	—	—	374	11,217
Restaurant or café	—	—	—	—	43	94	—	—	43	94
Retail (general)	716	34,033	26	1,381	479	32,812	182	9,194	1,403	77,420
Temporary	459	774	170	178	740	740	114	141	1,483	1,833
Theatre	—	—	—	—	8	332	4	100	12	432
Wholesale	104	6,868	49	1,316	107	4,563	17	824	277	13,571
Transfers, removals, etc.	—	776	—	721	—	—	—	—	—	1,497
Manufacturer	—	—	591	1,367	—	—	—	—	591	1,367
Market—										
Buildings	—	—	3	26	—	—	—	—	3	26
Stall	—	—	115	63	—	—	—	—	115	63
Medical practitioner (including Native)	295	758	1,945	4,777	361	1,810	168	3,212	2,769	10,557

* Outside municipalities only.

(iv) LICENCES (TRANSFERRED AND ASSIGNED TO PROVINCES) ISSUED IN THE SEVERAL PROVINCES DURING THE FINANCIAL YEAR 1923-24—*contd.*

Description of Licence.	Cape.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Miller	—	—	126	481	—	—	—	—	126	481
Notary	—	—	82	100	—	—	164	411	246	511
Ostrich feather (to buy)	405	1,170	—	—	—	—	—	—	405	1,170
Oyster (to collect)	775	49	—	—	—	—	—	—	775	49
Passenger conveyance	—	—	260	273	—	—	—	—	260	273
Pawnbroker	12	120	6	60	—	—	1	15	19	195
Pedlar	—	—	—	—	887*	705	—	—	887	705
Refreshment room (non-liquor)	—	—	783	2,025	—	—	—	—	783	2,025
Speculator (live stock and produce)	728	7,458	—	—	—	—	—	—	728	7,458
Stationer or bookseller	—	—	7	19	—	—	—	—	7	19
Stock and share broker	—	—	16	152	—	—	—	—	16	152
Trader or hawker (Zululand)	—	—	27	116	—	—	—	—	27	116
Trawling vessel	6	30	—	—	—	—	—	—	6	30
Whaling	12	600	—	—	—	—	—	—	12	600
White labour registry	—	—	—	—	30	53	—	—	30	53
Transfers, removals, and penalties	—	1,059	—	344	—	852	—	473	—	2,728
TOTAL	49,962	450,576	100,520	107,113	59,624	233,701	33,046	84,213	243,152	875,603

* Outside municipalities only.

NOTE.—The licences in respect of Natal *include* certain municipal trading and liquor licences, *vide* section 14, *Financial Relations Act*, 1912.

§ 9. Stamp Duties and Fees.

The following is the tariff of stamp duties and fees prescribed by the *Stamp Duties and Fees Act* of 1911, as amended by Act No. 31 of 1913 and Act No. 31 of 1921. The detailed application of the categories enumerated therein is subject to the decision of the Commissioner of Inland Revenue, if there exists any doubt as to the head under which a particular transaction falls for the purposes of the Acts. From time to time the Commissioner issues a circular summarizing decisions and interpretations under the Acts.

Tariff of Stamp Duties:

	£	s.	d.
Affidavit or Solemn or Attested Declaration—In respect of every deponent or declarant except that an affidavit or declaration made on behalf of a company or partnership, or by persons holding jointly the office of administrator, executor, curator, tutor or trustee, and deposing or declaring only as such, shall be deemed to be made by one deponent or declarant	0	1	0
Exemption: Any affidavit or declaration required to be made in connection with any payment to, or refund from, the public revenue, or any payment in respect of pension by the Imperial or any Colonial Government.			
Antenuptial or Postnuptial Contract	1	0	0
Agreement or Contract in respect of which no other stamp duty is specifically provided—if the matter thereof be of the value of £10 or upwards	0	1	0
Exemptions: (*a*) Contracts or agreements relating to the sale, supply, or delivery of goods, wares, or merchandise (including live stock and agricultural produce);			
(*b*) Contracts or agreements for the hire of any domestic servant, labourer, or seaman.			
Arbitration or Award: Every deed of submission and every award: If the amount or value in dispute do not exceed £50	0	2	6
If it exceed £50	0	5	0
Authentication Certificate given by any Minister or public officer in his official capacity or under his official seal testifying to the identity of any person or the authenticity of any signature on a document for use outside the Union: Provided that where more than one signature or seal is required to complete the authentication, one payment of duty shall be sufficient	0	10	0
Bank Note: In lieu of the duty imposed under "Promissory Note" a composition duty at the rate of ten shillings per cent. of the average monthly circulation within the Union of the Notes of any bank during each half year.			

	£	s.	d.
Bill of Exchange or Promissory Note :			
(1) Payable on demand.....	0	0	1
(2) Payable otherwise than on demand :			
(i) When the amount or value does not exceed £10.....	0	0	1
(ii) When the amount or value exceeds £10, but does not exceed £50.....	0	0	6
(iii) When the amount or value exceeds £50—for every £50 or part thereof.....	0	0	6

Exemptions :

(*a*) Bank notes on which the composition duty aforesaid is payable.
(*b*) Draft or order by any banker on another banker not available for payment or credit to any third person and used solely for settling or clearing accounts between such bankers.
(*c*) Coupon or warrant for interest or dividend attached to or issued with any marketable security.
(*d*) Bill or draft by or upon the Union Treasury or any public account.

Bill of Lading for the carriage or transport of any goods by sea, for every such bill or copy or duplicate thereof. 0 0 6

Bond : (1) Any mortgage bond hypothecating immovable property or interest in such property and any general or special bond passed before a notary public : provided that in the case of any such bond which is executed by way of suretyship only and is collateral to a duly stamped bond for the same debt or obligation executed by the principal debtor or obligor, the duty chargeable shall be one shilling for each £100 or part thereof of the debt secured or to be secured :—

(*a*) Where the total amount of the debt secured or to be secured does not exceed £500—for every £100 or part thereof.....	0	1	0
(*b*) Where the total amount of the debt secured, or to be secured, exceeds £500, but does not exceed £1000—for every £100 or part thereof	0	1	6
(*c*) Where the total amount of the debt secured or to be secured exceeds £1000, but does not exceed £2000—for every £100 or part thereof.....	0	2	6
(*d*) Where the total amount of the debt secured or to be secured exceeds £2000— for every £100 or part thereof.....	0	5	0
(2) Any bond mentioned in (1) which is auxiliary or collateral to or substituted for a previously made and duty stamped bond executed by the same person and for the same debt or obligation—a duty at the rates mentioned in (1) but not exceeding....	0	10	0
(3) Cession of any such bond as mentioned in (1) :—			
(*a*) Where the amount remaining due does not exceed £1000—for every £100 or part thereof.....	0	1	0
(*b*) Where the amount remaining due exceeds £1000—for every £100 or part thereof.....	0	2	6
(4) Cession of any auxiliary, collateral, or substituted bond as aforesaid...	The like duty as is chargeable on the bond.		

Exemptions :

(*a*) Bond given solely in security for any payment due to the public revenue.
(*b*) Bond given by any public official in respect of the discharge of his official duties.

Broker's Note :

Where the consideration exceeds £5 and does not exceed £25.....	0	0	1
Where the consideration exceeds £25, but does not exceed £50.....	0	0	6
Where the consideration exceeds £50, but does not exceed £100.....	0	1	0
Where the consideration exceeds £100 for every £100 or part thereof.....	0	1	0

Exemption :

(*a*) Note of sale or purchase on behalf of another broker or agent within the Union who is acting in the same transaction for a principal.
(*b*) Note in respect of the sale or purchase of any stock issued by the Government of the Union.

Certificate by any person (other than a Notary) in a public or official capacity of any act or thing having been done or performed or of any document or copy of any document..... 0 1 0

Exemptions :

Certificates in respect of which any fee or duty be otherwise chargeable by law or regulation.

Charter Party :

(1) Of any vessel or ship not exceeding 500 tons burthen.....	0	15	0
(2) Of any vessel or ship exceeding 500 tons burthen but not exceeding 1000 tons.....	1	10	0
(3) Of any vessel or ship exceeding 1000 tons burthen.....	2	10	0

Company Capital Duty :

Five shillings per cent.on a statement of the amount of nominal capital or increase of nominal capital for registration thereof.

Customs Documents :

On each original bill or document of entry or document in lieu thereof..	0	0	6

Exemption :

Any bill or document of entry coastwise from any port in the Union to any other port in the Union.

Lease or Agreement of Lease or any instrument intended or operating as a lease or agreement to let (including a sub-lease) provided the lease, agreement, or instrument is not chargeable with Transfer Duty :—

(1) (*a*) If the lease, agreement, or instrument be by the month or for any definite period of less than one year ; or			
(*b*) If the lease, agreement, or instrument be for any definite period but terminable by one month's notice or less than one month's notice :—			
If the rent does not exceed the rate of £2. 10s. per month.....	0	0	6
If the rent exceeds the rate of £2. 10s. per month but does not exceed the rate of £5 per month	0	1	0
If the rent exceeds the rate of £5 per month but does not exceed the rate of £10 per month.....	0	2	6
If the rent exceeds the rate of £10 per month but does not exceed the rate of £15 per month..	0	5	0
If the rent exceeds the rate of £15 per month but does not exceed the rate of £20 per month.....	0	10	0
If the rent exceeds the rate of £20 per month but does not exceed the rate of £25 per month.....	0	15	0
If the rent exceeds the rate of £25 per month.....	1	0	0
(2) If the lease, agreement, or instrument be for a definite period of one year or longer, duty shall be payable according to the following scale on a sum equal to the aggregate amount of rent payable during the period of the lease, agreement, or instrument, *plus* the amount of any other consideration whatso-			

	£	s.	d.
ever due or payable in respect of or by virtue thereof :—			
If the lease, agreement, or instrument be for any period not exceeding five years—for every £100 or part thereof.....	0	5	0
If the lease, agreement, or instrument be for any period exceeding five years but not exceeding ten years—for every £100 or part thereof.....	0	7	6
If the lease, agreement, or instrument be for any period exceeding ten years but not exceeding twenty years—for every £100 or part thereof.....	0	10	0
If the lease, agreement, or instrument be for any period exceeding twenty years—for every £100 or part thereof.....	0	15	0
Provided that if in any case it be shown to the satisfaction of the Commissioner that the aggregate amount of rent or other consideration on which duty is payable exceeds the full selling value of the property leased, duty shall be payable only on the amount of such full selling value.			
(3) Any lease, agreement, or instrument for an indefinite period not within any of the foregoing classes shall for the purposes of duty be deemed to be for three years; but after the expiration of any period of three years, the lease, agreement, or instrument shall, if indefinitely continued or renewed, be stamped again for another period of three years.			
(4) Lease, agreement, or instrument aforesaid—			
Cession or Assignment.....	0	5	0
Any Cession or Assignment by a lessee or holder provided such cession be not liable for Transfer duty.			
Duplicate original of any instrument, the original whereof is chargeable with stamp duty under any law in force within the Union: the like duty to that chargeable upon the original, but not to exceed.....	0	1	0
Exemptions.			
Any duplicate original in respect of which a substantive stamp duty is otherwise chargeable. Any duplicate original which is required to be filed of record in any public office of the Union.			
Marketable Security—including any scrip, certificate, warrant, or any other like instrument representing any share, stock, or debenture, or any right of option to acquire any such share, stock, or debenture of any company or other corporate body (excepting a local authority or a building society) :—			
(1) In respect of the original issue within the Union of any such shares, stocks, or debentures—			
(*a*) if transferable only by registration: for every £10 or part thereof of nominal value.....	0	0	6
(*b*) if made out to bearer or in any manner so as to be transferable by delivery only, for every £10 or part thereof of nominal value	0	2	0
Exemptions :			
(i) Where the scrip, certificate, warrant, or like instrument is issued solely in substitution for any instrument or instruments of the same nature of like or equivalent value, withdrawn, cancelled, or lost, which were owned by the person to whom the issue in substitution is made :			

	£	s.	d.
Provided that this exemption shall only be allowable if the new instrument is endorsed by a director, secretary, or responsible officer as being *bona fide* a substitution without change of ownership.			
(ii) Any share or other instrument or document issued in connection with the capital of any co-operative society or company with limited liability registered under Act No. 28 of 1922.			
(2) In respect of the registration of the transfer of any such marketable security: for every £100 or part thereof of the amount or value of the consideration given, or where no consideration is given, of the value of the marketable security transferred.....	0	1	0
Notarial Act or Instrument :			
Any notarial act or instrument in respect of which no other stamp duty is specially provided, and any notarial grosse duplicate, original, or copy of any instrument.....	0	2	0
Partnership :			
Agreement of Partnership.....	1	0	0
Policies of Insurance :			
(1) Policy of life insurance :—			
If the sum assured do not exceed £50.....	0	0	1
If the sum assured exceed £50 but do not exceed £500—for every £100 part thereof.....	0	0	6
If the sum assured exceed £500 but do not exceed £1,000—for every £100 or part thereof.....	0	1	0
If the sum assured exceed £1,000—for every £100 or part thereof..	0	1	6
(2) Policy of insurance against accident to a person or in respect of injury, incapacity, sickness, or the like—every policy.....	0	1	0
Every renewal thereof.....	0	1	0
(3) Policy of insurance whereby a sum is payable to cover any compensation or damage due under a law relating to workmen's compensation or employer's liability or the common law, in respect to the death, or illness of, or injury to, an employee, or any third party insurance—every policy.....	0	1	0
Every renewal thereof.....	0	1	0
(4) Policy of insurance or renewal thereof of any other kind, including marine insurance, fidelity insurance, plate glass insurance, insurance against burglary, fire, or any other risk, loss or damage or any combined or other insurance not specified in (1), (2) or (3)—for every £100 or part thereof of the sum insured..... Subject to a minimum duty of 6d. and a maximum duty of £5.	0	0	1
(5) Any policy or renewal thereof where the sum assured is not a specific sum.....	0	1	0
(6) Cession of any policy of insurance Provided that the duty on any cession shall not exceed the duty to which the ceded policy would be liable under the foregoing provisions.	0	2	0
(7) In respect of any tickets, coupons, notices, bills, or other documents purporting to be or to entitle to an insurance in the event of death, injury, sickness, or the like.	A duty of two and a half per cent. on the annual receipts from the sale or issue for valuable consideration of any such document.		

	£	s.	d.
Where a renewal under (2), (3), or (4) is for less than a yearly period *pro rata* duty only shall be payable—for example— for a half-yearly renewal, one-half of the duty; for a quarter of a year's renewal, one-quarter of the duty.			
(8) Any interim policy of insurance, the currency of which does not exceed four calendar months.....	0	1	0
Provided that the duty on any such interim policy shall not exceed that payable upon a final policy covering a like risk.			
Exemption:			
Policies solely for the purpose of effecting reinsurance by one insurance company or association in another insurance company or association to cover general risks.			
Power of Attorney or any instrument of like kind:—			
(1) Proxy to vote at any specified meeting or adjournment thereof..	0	0	1
(2) Any special power, or substitution under any power of attorney whatsoever..... (in respect of each grantor)	0	1	0
(3) To act generally for the grantor.. (in respect of each grantor)	0	5	0
(4) Of any kind not comprised in the foregoing..... (in respect of each grantor) Except that a power granted by or on behalf of a company or partnership or by persons holding jointly the offices of administrator, executor, curator, tutor, or trustee, and granting the power in any such capacity only shall be deemed to be given by one grantor.	0	1	0
Receipt:			
(1) If given for or upon the payment of money of the amount of £1 or upwards.....	0	0	1
(2) If given for or in respect of any fixed deposit made with any bank, company, or association whether corporate or unincorporate—for every £100 (or part thereof) and for every period of twelve months (or part thereof) for which the deposit is made.....	0	0	6
Exemptions:			
(*a*) Receipt or acknowledgment by any Government official for any payment or deposit received by him in his official capacity.			
(*b*) Receipt or acknowledgment on Postal Orders or Money Orders or Post Office Savings Bank forms.			
(*c*) Receipt passing between any legally established benefit society, provident society, building society, or savings bank society, and any member thereof.			
(*d*) Acknowledgment or slip relating to money deposit (other than on fixed deposit) with a bank to the credit or account of any person.			
(*e*) Acknowledgment by a bank or a notary of the receipt of any bill or note for the purpose of being presented for acceptance or payment.			
(*f*) Receipt received in the Union, but executed outside the Union and relating to the payment made outside the Union.			
(*g*) Receipt given by a prisoner or discharged prisoner to the prison authorities in respect of money paid to him or on his behalf during imprisonment or on discharge from prison.			
(*h*) Receipt for pay and allowances given by any member of the Union Defence Forces in time of war, and receipts for pay or allowances given by any member of those forces other than the South African Permanent Force, in time of peace.			
Security or Suretyship:			
Any document of security or pledge or any act of suretyship, indemnity, or guarantee not otherwise chargeable with duty:—			
(1) For any sum not exceeding £10.	0	0	1
For any sum exceeding £10, but not exceeding £50.....	0	0	6
For any sum exceeding £50, but not exceeding £100.....	0	1	0
For any sum exceeding £100—for every £100 or part thereof...	0	1	0
(2) Where no amount is stated....	0	2	6
(3) Not comprised in the foregoing.	0	2	6
Exemption:			
(1) When given solely in relation to any payment due to the public revenue.			
(2) A cession by a co-operative company to the Land and Agricultural Bank of South Africa as security for a loan of the company's right and title to— (*a*) the amount of subscribed but unpaid capital, and to the amount of any contingent liability attaching to its shares; and (*b*) the amount of any debts owing to the company (section 3 of Act No. 40 of 1922).			
Survey of a Ship or Vessel:			
Certificate thereof.....	0	2	6
Transfer Deed:			
Relating to immovable property—for every £10 or part thereof of the consideration or value.....	0	0	6
Exemption:			
(1) Partition transfers except in respect of consideration paid by one of the parties thereto to another such party.			
(2) Transfers whereby no change of beneficial interest in the property transferred is effected.			
General Exemptions in respect of all Instruments:			
(1) No stamp duty and no fee payable by means of stamps in any court or public office shall be chargeable in respect of:— (*a*) Any instrument, or the registration, lodgment, issue, or use thereof, if the duty or fee thereon would be legally payable and borne by the Government of the Union or any department thereof or by the Imperial Government. (*b*) Any instrument used, or for use, in or in connection with criminal proceedings, or charge laid of a criminal offence, or in connection with bail.			
(2) Any instrument specially exempted from stamp duty under any law shall not be chargeable with duty by reason of the provisions of this Act.			

§ 10. Weights and Measures.

1. **Weights and Measures Act.**—An historical review of the weights and measures systems of the four Provinces of the Union, up to the passing of the Union Act which consolidated the existing legislation, was given in the fourth issue of this *Year Book*. The *Weights and Measures Act*, No. 32 of 1922, which came into operation on the 1st April, 1923, established standard weights and measures throughout the Union, and embodied the principle of the optional use of metric and Imperial standards, subject to provisions contained in the Act. The standards adopted are set out in the First Schedule to the Act, and are as follows :—

STANDARD MEASURES OF WEIGHT, LENGTH, AND CAPACITY.

WEIGHT.

1 pound	= 0·4535924 kilogram.	1 kilogram	= 2·2046225 pounds (avoir.)

LENGTH.

1 yard	= 0·9143992 metre.	1 metre	= 1·0936143 yard.

CAPACITY.

1 gallon	= 4·545963 litres.	1 litre	= 0·219975 gallon.

New standards may be approved from time to time by Proclamation.

The denominations of the weights and measures which may be assized and used in trade are specified in the Second Schedule to the Act, and are given hereunder, multiples and parts being in each case omitted :—

WEIGHTS AND MEASURES USED IN TRADE.

I. WEIGHTS.

1. *Avoirdupois Weight.*
   Ton=2,000 pounds.
   Cental (cl.)=100 pounds.
   Pound (lb.).
   Ounce (oz.)=437·5 grains=28·3495 grams.
   Dram (dr.).
2. *Troy Weights (for Precious Metals).*
   Ounce troy (oz. tr.)=480 grains=31·1035 grams.
   Pennyweight (dwt.)=24 grains (grs.).
3. *Carat Weights (for Precious Stones).*
   *Carat (ct.)=200 milligrams=3·08647 grains.
4. *Apothecaries Weights.*
   Ounce (oz. apoth.)=480 grains.
   Drachm=3 scruples.
   Scruple.
   Grain.
5. *Metric Weights.*
   Metric tonne=1,000 kilograms.
   Kilogram.
   Gram.
   Decigram (0·1 gram).
   Centigram (0·1 decigram).
   Milligram (0·1 centigram).

II. CAPACITY.

1. *Liquid Measures.*
   Gallon (gal.).
   Quart (qt.)=¼ gallon.
   Pint (pt.)=½ quart.
   Gill=¼ pint.
2. *Apothecaries Measures.*
   Pint.
   Fluid ounce (fl. oz.).
   Fluid drachm (fl. dr.).
   Minim (min. or M.).
3. *Metric Measures (Liquid).*
   Decalitre (10 litres).
   Litre (1·0).
   Decilitre (0·1 litre).
   Centilitre (0·01 litre).
   Millilitre (0·001 litre).

III. LENGTH AND AREA.

1. *Length.*
   Customary multiples and parts of the yard, the foot, the inch, the metre, the Cape foot (=0·3148581 metre) and the Cape rood.

2. *Area.*
   The squares of the standard measures of length and

The morgen	=	600 sq. roods.
	=	86,400 sq. Cape feet.
The acre	=	4,840 sq. yards.
	=	43,560 sq. English feet.
The hectare	=	10,000 sq. metres.

* International (metric) carat, which equals ·974165 of old carat.

Cape measures of length and area may not be used except for measuring land, and then only so far as the survey laws of any portion of the Union admit such use.

Provision is made for the administration of the Act by a superintendent and assizers, and for the appointment of an assize board. Local authorities or combinations of local authorities may be authorized to administer the Act within their areas.

The following is the personnel of the Assize Board appointed under the Act :—Official Members, J. C. Davidson, Superintendent of Assize (Chairman); Dr. Hans Pirow, Government Mining Engineer. Non Official Members, Professor J. C. Orr, O.B.E.; W. A. Martin, Secretary of Johannesburg Chamber of Commerce; and A. C. Marsh, Esq., Secretary to the Board.

2. **Weights and Measures used in connection with Agricultural Production.**—The denominations, etc., commonly used in measuring farming produce in the Union are indicated in the following statement :—

Cereals are measured by the bag.
Fresh Fruit is measured by the basket or the box (of various weights).
Dried Fruit and *Strawberries* are measured by weight.
Hay and other *stock feed* is measured by the ton (2,000 lb.).

STANDARD WEIGHTS ADOPTED FOR VARIOUS PRODUCE.

Wheat, rye, maize, kaffir corn, peas, beans	Bag (200 lb.)
Boer meal, rye meal, and cockle	„ (200 lb.)
Maize rice or maize grit	„ (190 lb.)
Maize flour, maize (seconds), crushed maize, maize meal	„ (180 lb.)
Barley and oats	„ (150 lb.)
Buckwheat, hominy chop, germ meal, pollard	„ (150 lb.)
Potatoes	„ (150 lb.)
Onions and sweet potatoes	„ (120 lb.)
Sunflower seed	„ (100 lb.)
Wheaten bran	„ (100 lb.)
Crushed oats	„ (100 lb.)
Monkey nuts	„ (80 lb.)
Maize bran	„ (80 lb.)
Sugar cane	Ton (2,000 lb.)
Wine, brandy, and vinegar	Leaguer (about 127 gal.)

MEASURES OF LENGTH, SURFACE, AND VOLUME IN COMMON USE.

Cape Land Measures.

12 Linear Cape feet	=	1 linear Cape rood.
144 Cape square feet	=	1 Cape square rood.
600 Cape square roods	=	1 morgen.
1,000 Cape feet	=	1,033 English feet.
1 morgen	=	2·11654 English acres.

Timber Products Measurements.

1 standard gauge sleeper (7 ft. by 10 in. by 5 in.)	=	2½ cubic feet.
1 pole, 6 ft. 6 in. long, diameter 5·3 in.	=	1 cubic ft.
10 fencing droppers (5 ft. long, 2 in. diameter)	=	1 cubic ft.
33 cubic feet average roughly 1 ton (2,000 lb.).		
1 large wagon-load of firewood averages 90 cubic ft.		

3. **Assizing Fees.**—Subjoined is the schedule of fees levied in respect of the assizing and re-assizing of instruments and weights and measures.

TARIFF OF ASSIZING FEES.

Weighing Instruments Assized—	s.	d	
30 tons and above	80	0	each
5 tons and under 30 tons	30	0	„
1 ton and under 5 tons	12	6	„
1000 lb. and under 1 ton	7	6	„
100 lb. and under 1000 lb.	5	0	„
10 lb. and under 100 lb.	3	0	„
Under 10 lb.	2	0	„
Self-indicating counter scales, 3 lb. and under	4	0	„
Self-indicating counter scales over 3 lb.	6	0	„

NOTE.—When any weighing instrument is rejected by the assizer as incorrect at places other than a place provided in section twenty-four (1) of the Act the fee to be charged shall be equal to half the aforementioned fees.

	s.	d.	
Weights Assized—			
50 lb. and over	0	9	each
Over 5 lb. and under 50 lb.	0	6	,,
5 lb. and under	0	4	,,
Over 10 oz. troy	1	0	,,
10 oz. to 2 oz. troy, inclusive	0	6	,,
1 oz. to ·001 oz. troy, inclusive	0	4	,,
Apothecaries carat and grain weights	0	4	,,
Measures Assized—			
32 to 8 gallons inclusive	3	0	,,
Under 8 gallons and over 2 gallons	2	0	,,
2 and 1 gallon	1	0	,,
½-gallon and quart	0	6	,,
Pint and under (metal)	0	3	,,
Glass milk measures	0	1	,,
Apothecaries measures	1	0	,,
Tape measures over 10 feet	3	0	,,
Tape measures 10 feet and under	0	6	,,
Weights and Measures Adjusted, etc.—			
Over 20 lb.	1	0	,,
20 lb. and under	0	6	,,
8 gallon and over	2	6	,,
Under 8 gallon and over 2 gallon	2	0	,,
2 gallon and ½-gallon, inclusive	1	0	,,
Under ½-gallon	0	6	,,
Denominating metal measures	1	0	,,
Denominating glass measures	0	3	per doz.
Solder studs	0	3	each.

NOTE.—For assizing metric weighing instruments, weights, and measures the fee to be charged is calculated to the nearest denomination of any of the above-mentioned items.

For automatic machines of a similar capacity to the aforementioned the fee to be charged is double such fees.

For measuring instruments which by approved mechanism automatically indicate the length of material passed through, the fee to be charged is 6s.

For measuring instruments which by approved mechanism automatically measure the superficial area of material passed through, the fee to be charged is £1.

For self-measuring liquid pumps the fee to be charged is :—	s.	d.
(*a*) Where the capacity of the pumps is under 1 gallon	5	0
(*b*) Where the capacity of the pumps is 1 gallon or over	10	0

Where an assizer attends at a place other than a District Assize Office, or the premises of a manufacturer or repairer of weighing instruments, weights, or measures, the fee to be charged is as specified in the preceding tables plus 25 per cent.

Where an outlay is incurred for the transport of standards, the amount thereof is levied *pro rata* on the users of weights, measures, weighing, and measuring machines so tested.

NOTE.—The *pro rata* provision of this clause refers to the expenses incurred for the transportation of standards required to perform tests elsewhere than at the District Assize Office.

CHAPTER XIX.

HARBOURS AND SHIPPING.

§ 1. Harbours.

1. **General.**—The harbours and lighthouses of the Union are owned and managed by the Government. They are associated under the *South Africa Act* with the railways of the Union for the purposes of control and administration, and financially are upon the same footing as the railways under the provisions of the constitution dealing with the Railway and Harbour Fund. The administration is required to be upon business principles, due regard being had to agricultural and industrial development within the Union.

2. **Harbour Advisory Boards.**—Harbour Advisory Boards are constituted at the harbours of Table Bay, Mossel Bay, Port Elizabeth, East London, and Durban. Each Advisory Board consists of seven members. One member is nominated by the Municipal Council of the town at which the harbour is situate, three by the Chamber of Commerce of such town, and the remaining three members are nominated by the Governor-General. In the nomination of the last-mentioned three members, one is selected to represent shipping interests, and one to represent persons paying harbour dues and charges.

The General Manager of Railways and Harbours furnishes the Boards with such information and affords them such reasonable facilities as may be necessary for the determination of any matter under consideration, or for the due and proper fulfilment of their duties and functions. It is the duty of the Boards to advise the Administration upon any matter affecting the interest or welfare of the respective harbours; the construction, maintenance, and upkeep of harbour works; the landing, shipping, and transhipping of cargo; the charges upon goods and upon shipping, and the regulations affecting importers, shippers, and the trade of the port generally. The Boards also furnish the Administration with their opinion upon any subject or question referred to them for advice.

3. **Capital Expenditure on Harbours.**—Particulars are given hereunder from the yea 1912 as to the accumulated capital expenditure and interest on capital in respect of the harbours of the Union :—

HARBOURS—CAPITAL EXPENDITURE AND INTEREST ON CAPITAL, 1912 TO 1923-24.

Year.	Capital Expenditure.	Interest on Capital.
	£	£
1912	11,644,566	379,405
1913	11,910,974	384,654
1914	12,154,146	387,227
1915	12,326,915	395,254
1916	10,200,167*	389,420
1917–18	10,180,131	327,714
1918–19	10,259,180	331,836
1919–20	10,354,073	335,525
1920–21	10,288,962	345,474
1921–22	11,221,521	347,435
1922–23	11,856,828	376,315
1923–24	12,523,771	372,107

* Decrease is due to the transfer of certain assets from harbours to railways during the year 1916.

4. **Revenue and Expenditure of Harbours.**—The subjoined tables show (i) the yearly revenue and (ii) the yearly expenditure of harbour administration in the Union from the year 1910 under the main classifications :—

(i) **UNION HARBOURS REVENUE, 1910 TO 1923–24.**

Year.	Dues on Ships.	Dues on Goods and Live Stock.	Water.	Tugs and Lighters.	Landing, Shipping, and Transhipping. Charges.	Cranage Service.	Other Revenue.	Total.
	£	£	£	£	£	£	£	£
1910.....	65,380	143,648	6,438	26,517	160,708	15,609	45,500	463,800
1911.....	90,989	253,027	13,800	46,062	296,259	23,775	115,719	839,631
1912.....	104,206	280,056	15,836	47,327	355,251	30,050	114,313	947,039
1913.....	112,074	302,854	15,583	45,864	418,258	29,819	115,044	1,039,496
1914.....	120,531	244,572	20,005	44,281	398,391	30,982	117,569	976,331
1915.....	102,232	248,648	20,529	49,728	379,839	32,648	132,736	966,360
1916.....	136,364	363,253	19,815	74,114	282,741	34,151	121,154	1,031,592*
1st Jan. to 31st March, 1917.	34,315	106,400	6,906	22,539	6,026	10,793	22,709	209,688
1917–18†.....	141,245	475,360	25,284	92,381	5,329	46,717	140,462	926,778
1918–19†.....	103,759	583,133	13,952	76,339	3,175	43,739	115,243	939,340
1919–20†.....	125,542	598,780	19,054	96,785	7,507	49,619	112,956	1,010,243
1920–21†.....	175,246	956,954	18,838	114,232	19,539	62,253	134,534	1,481,596
1921–22†.....	159,161	596,956	16,492	119,068	19,796	56,086	121,528	1,089,087
1922–23†.....	155,224	627,489	19,220	125,883	27,500	49,582	135,097	1,139,995
1923–24†.....	186,335	740,023	20,564	135,306	25,293	65,445	150,832	323,798

* The earnings and expenses in connection with the shore work at the harbours, which were previously included in harbour accounts, have been included in railway accounts as from 1st September, 1916.
† Year ended 31st March.

(ii) **UNION HARBOURS EXPENDITURE, 1910 TO 1923–24.**

Year.	Maintenance and Upkeep.	Traffic Working.	General Charges, etc.	Total Ordinary Working Expenditure.	Depreciation.	Total Working Expenditure.
	£	£	£	£	£	£
1910.....	159,991	114,809	17,798	292,598	103,313	395,911
1911.....	262,674	221,472	57,894	542,040	185,083	727,123
1912.....	269,382	266,818	56,938	593,138	215,383	808,521
1913.....	292,632	332,954	54,341	679,927	220,515	900,442
1914.....	296,614	322,440	52,458	671,512	184,735	856,247
1915.....	264,846	316,866	52,613	634,325	46,504	680,829
1916.....	305,604	249,275	44,660	599,539	57,000	656,539*
1st Jan. to 31st March, 1917...	76,398	16,661	5,629	98,688	19,000	117,688
1917–18†.....	298,396	39,882	31,818	370,096	86,849	456,945
1918–19†.....	319,013	37,895	37,063	393,971	85,895	479,866
1919–20†.....	406,867	50,087	40,159	497,113	86,396	583,509
1920–21†.....	510,964	60,462	44,525	615,951	83,997	699,948
1921–22†.....	498,825	61,044	44,928	604,797	83,519	688,316
1922–23†.....	430,943	58,730	33,684	523,357	59,430	582,787
1923–24†.....	468,126	58,886	35,085	562,097	52,098	614,195

* The earnings and expenses in connection with the shore work at the harbours, which were previously included in harbour accounts, have been included in railway accounts as from 1st September, 1916.
† Year ended 31st March.

5. **Government-Owned Steamers.**—In 1919 the Union Government acquired three steamers of 15,069 total gross tonnage, which are worked and controlled by the Railways and Harbours Administration. The following table gives the revenue and expenditure relative to this undertaking from the year 1919–20 :—

STEAMSHIPS—REVENUE AND EXPENDITURE, 1919–20 TO 1923–24.

Year.	Expenditure.				Revenue.			Net Profit.
	Working Expenditure.	Interest.	Miscellaneous.	Total.	Freight.	Miscellaneous.	Total.	
	£	£	£	£	£	£	£	£
1919–20	139,143	18,680	18,750	176,573	252,051	16,851	268,902	92,329
1920–21	242,643	27,500	28,194	298,337	351,929	13	351,942	53,605
1921–22	203,254	17,256	17,270	240,780	250,145	208	250,353	9,573
1922–23	146,156	17,256	17,256	180,668	183,342	107	183,449	2,781
1923–24	127,352	12,135	12,135	151,622	155,887	8	155,895	4,273

During 1925, the Railways and Harbours Administration added to its fleet two new steamers, each of approximately 5,000 gross tonnage.

6. **Staff of Harbour Department.**—The subjoined table gives the number of employees of the Harbour Department at 31st March, 1925, classified according to race and distinguishing salaried, daily paid, and casual employees :—

HARBOURS—NUMBER AND PARTICULARS OF STAFF, 31st MARCH, 1925.

Classification.	Regular Staff.				Casual.					Total.
		Non-European.								
	European.	Native.	Indian.	Other Coloured.	European.	Native.	Indian.	Other Coloured.	Convict.	
Salaried	280	—	—	—	—	—	—	—	—	280
Daily paid	870	1,354	180	637	215	—	8	52	1,022	4,338
European labourers	9	—	—	—	474	—	—	—	—	483
Total	1,159	1,354	180	637	689	—	8	52	1,022	5,101

7. **Berthing Facilities.**—The following diagrams give outlines of harbour works in the principal ports of the Union, together with particulars as to berthing facilities, depth of water, and other matters :—

ALGOA BAY, PORT ELIZABETH, 1925.

Particulars.

Jetty.	Dimensions.	Depth of Water along Working Portion at L.W.O.S.T.	Cranes.		
			No.	Capacity.	Description.
North Jetty	Total length, 1,204 ft. Working portion, length 720 ft., breadth 84 ft.	9 ft. at inshore end, 24 ft. at seaward end	1 6 2	7 tons 2 tons 15 cwt.	Hydraulic. Hydraulic. Hydraulic.
South Jetty	Total length, 1,162 ft. Working portion, length 705 ft., breadth 108 ft.	14 ft. at inshore end, 23 ft. at seaward end	1 9 1	7 tons 3 tons 20 tons	Hydraulic. Hydraulic. Electric.
Dom Pedro Jetty	Total length, including viaduct, 1,460 ft. Working portion, length 860 ft., breadth 105 ft.	13 ft. at inshore end, 24 ft. at seaward end	4 8	3 tons 2 tons	Hydraulic. Hydraulic.

Shed and Storage Accommodation (exclusive of Warehouses let to the Public).

Floor space ..... 308,400 sq. ft.
Cubic capacity (approximate) ..... 3,000,000 cubic ft.

Open roadstead with unlimited depth.

Lighterage.—33 lighters (total capacity, about 3,750 tons) and water-boat.

Tugs.—The port is equipped with four tugs, three of which are fitted with modern salvage and fire appliances.

Lifeboat.—Fully equipped.

Repairing Facilities.

Slipway.—Capacity, 400 tons dead weight.

PORT ELIZABETH, ALGOA BAY, 1925

JETTY ST
NORTH JETTY
2 Ton CRANES
BAKER'S SALT
SOUTH JETTY
3 Ton CRANES
3 Ton CRANES
3 Ton CRANES

MOSSEL BAY HARBOUR, 1925.

PARTICULARS.

WHARFAGE.	Length.	Depth at L.W.O.S.T.	CRANES.	
			No.	Capacity.
No. 1 Jetty..... (Exclusive of pile-work approach from abutment—length, 130 ft.)	350 ft.	10 ft.	2 1	4 tons (steam). 2 tons (hand).
No. 2 Jetty.....	120 ft.	8 ft.	2	3 tons (steam).
No. 2 Quay.....	250 ft.	6 ft.	1 1	10 tons (steam). 3 tons (steam).

Shed and Storage Accommodation.

Floor space..... 17,790 sq. ft.
Cubic capacity..... 260,000 cubic ft.

Open anchorage with unlimited depths.

Lighterage.—Nine lighters with dead-weight capacity o iabout 700 tons and water-boat.

Tugs.—The port is equipped with two tugs, one of which is fitted with modern fire and salvage appliances.

Repairing Facilities.

Slipway.—Cradle, 68 ft. long by 20 ft. wide.
Hauling capacity, 150 tons.
Draft, H.W.O.S.T.: 4 ft. 0 in. forward, 8 ft. 6 in. aft.

Slipway.—Cradle, 100 ft. long by 24 ft. wide.
Hauling capacity, 250 tons.
Draft H.W.O.S.T.: 7 ft. forward, 12 ft. aft.

MOSSEL BAY HARBOUR, 1925.

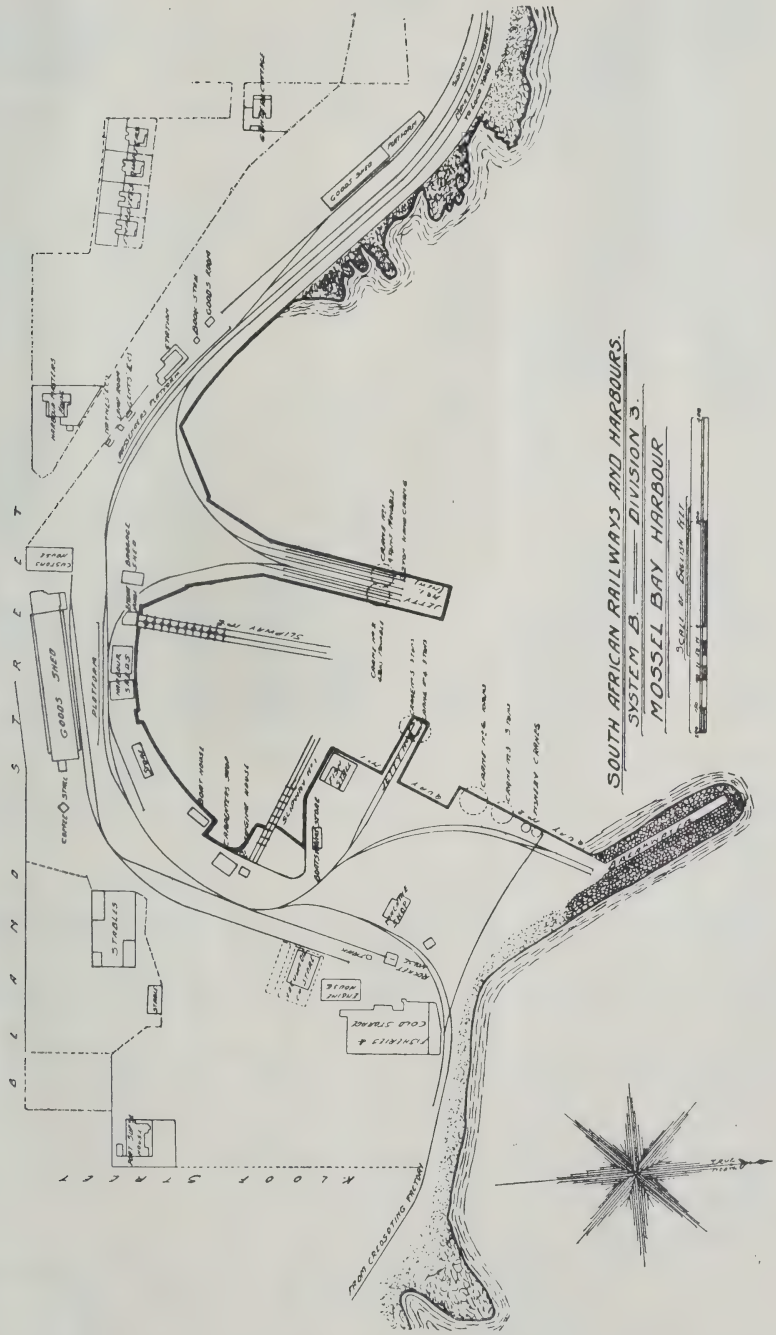


TABLE BAY HARBOUR, CAPE TOWN, 1925.

PARTICULARS.

QUAY OR JETTY.	Length.	DEPTH AT L.W.O.S.T.		CRANES (ELECTRIC).	
		Max.	Min.	No.	Capacity.
	Lin. ft.				
VICTORIA BASIN.					
No. 1 Jetty	520	19 ft. 9 in.	19 ft. 6 in.	—	—
	480	22 ft.	17 ft. 9 in.	—	—
No. 2 Jetty	640	37 ft.	35 ft.	3	4 tons.
	640	36 ft. 6 in.	35 ft.	5	3 tons.
No. 4 Jetty	709	33 ft.	20 ft.	3	4 tons.
	694	30 ft.	24 ft.	4	3 tons.
No. 1 Quay, South Pier	1,970	30 ft.	27 ft.	—	—
No. 2 Quay, South Pier Elbow	350	32 ft.	30 ft.	3	3 tons.
				1	7 tons.
No 3 Quay, South Pier Elbow (Outer Berth)	700	32 ft.	32 ft.	—	—
No. 4 Quay	240	10 ft.	10 ft.	—	—
No. 5 Quay	310	23 ft. 6 in.	14 ft.	—	—
No. 6 Quay	603	34 ft.	27 ft.	1	15 tons.
				2	3 tons.
				1	4 tons.
No. 7 Quay	630	38 ft.	38 ft.	2	3 tons.
				4	4 tons.
No. 8 Quay, East Pier	786	36 ft.	35 ft.	4	4 tons.
				1	3 tons.
Barge Wharf	450	21 ft.	20 ft.	—	—
ALFRED BASIN.					
No. 1 Quay (West)	860	24 ft.	22 ft.	2	3 tons.
				2	4 tons.
No. 2 Quay (North)	440	24 ft.	24 ft.	2	3 tons.
				1	4 tons.
No. 3 Quay	200	18 ft.	18 ft.	—	—
No. 4 Quay	330	19 ft.	19 ft.	—	—
No. 5 Quay	310	24 ft.	24 ft.	—	—
Explosive Wharf	300	20 ft.	20 ft.	1	1½ tons.

Storage of Coal.—Sites for 100,000 tons. Two "Temperley" Transporters and two 4-ton cranes and weighbridges erected at New Amsterdam coal yard.

Shed and Storage Accommodation.—
Floor space for cargo in sheds..... 488,599 square feet.
Cubic capacity of sheds..... 5,035,312 cubic feet.

Chilling Chambers.—The installation consists of 12 chambers of 76,187 cubic feet capacity, providing accommodation for over 900 tons of fruit pre-cooling at one time. The erection of a new double storey cargo shed and pre-cooling store on No. 8 Quay, East Pier, is in progress.

Fuel Tanks.—Three tanks each with a capacity of 4,000 tons and one tank with the capacity of 10,000 tons. Total capacity, 22,000 tons. The tanks which are privately owned are equipped with pumping plant and service pipe lines to quays.

Grain Elevator.—One terminal grain elevator of 30,000 tons capacity with loading conveyors to No. 4 Quay, also up-to-date loading appliances fitted on No. 4 Quay. Intake capacity 1,000 tons per hour. Shipping capacity 750 tons per hour.

Entrance Depth to Harbour.—At L.W.O.S.T., 40 feet.
Anchorage in roadstead, under shelter of breakwater, for vessels of any draught.

Lighters used for coaling purposes:—14 lighters of aggregate capacity of about 3,285 tons.

Tugs.—The port is equipped with three powerful tugs and two smaller craft. The three large tugs are equipped with modern salvage and fire appliances.

Repairing Facilities:—
Graving Dock.—Length on keel blocks..... 500 ft.
Width at coping..... 90 ft.
Width at entrance top..... 68 ft.
Maximum width at bottom (keel block height) 56½ ft.
Depth on sill, H.W.O.S.T..... 25 ft.
Dock can be emptied in three hours.

Slips.—Patent slip for craft up to 500 tons, with accommodation for two vessels at a time. Also two boat slips for yachts and small craft.

TABLE BAY HARBOUR

1925

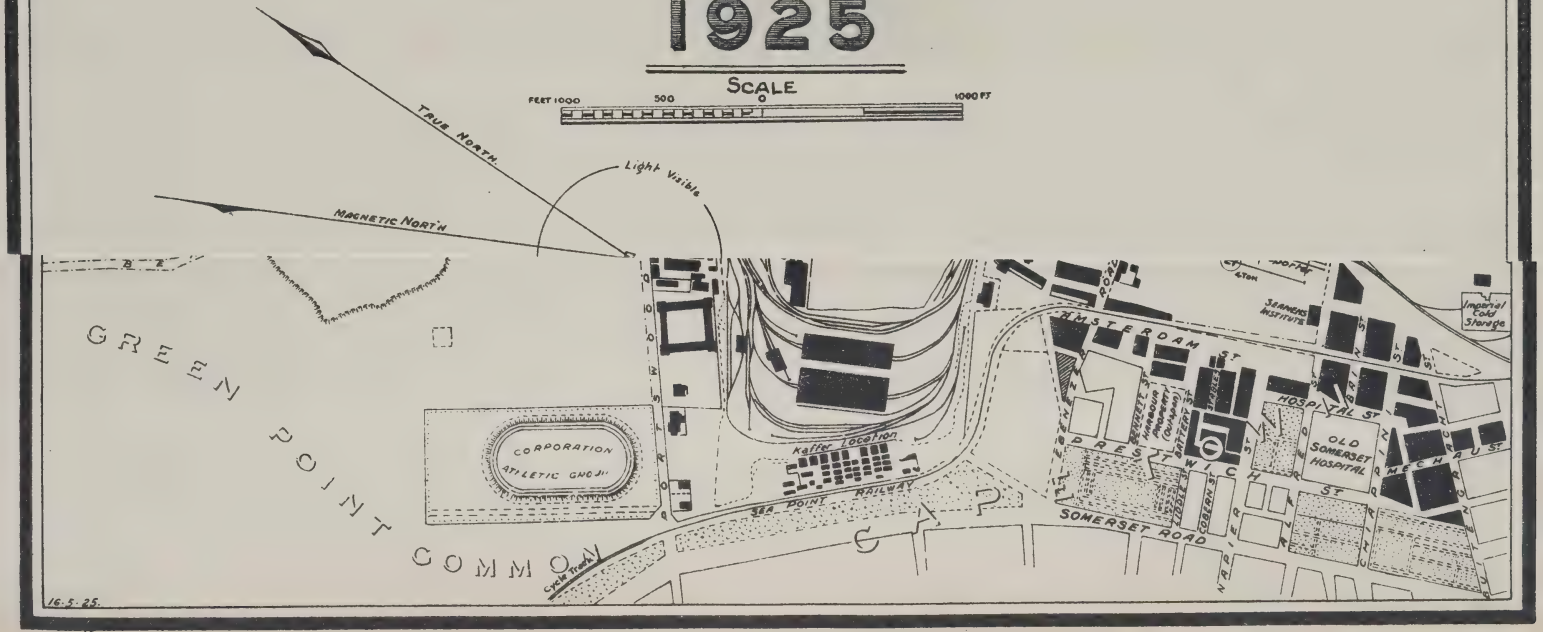
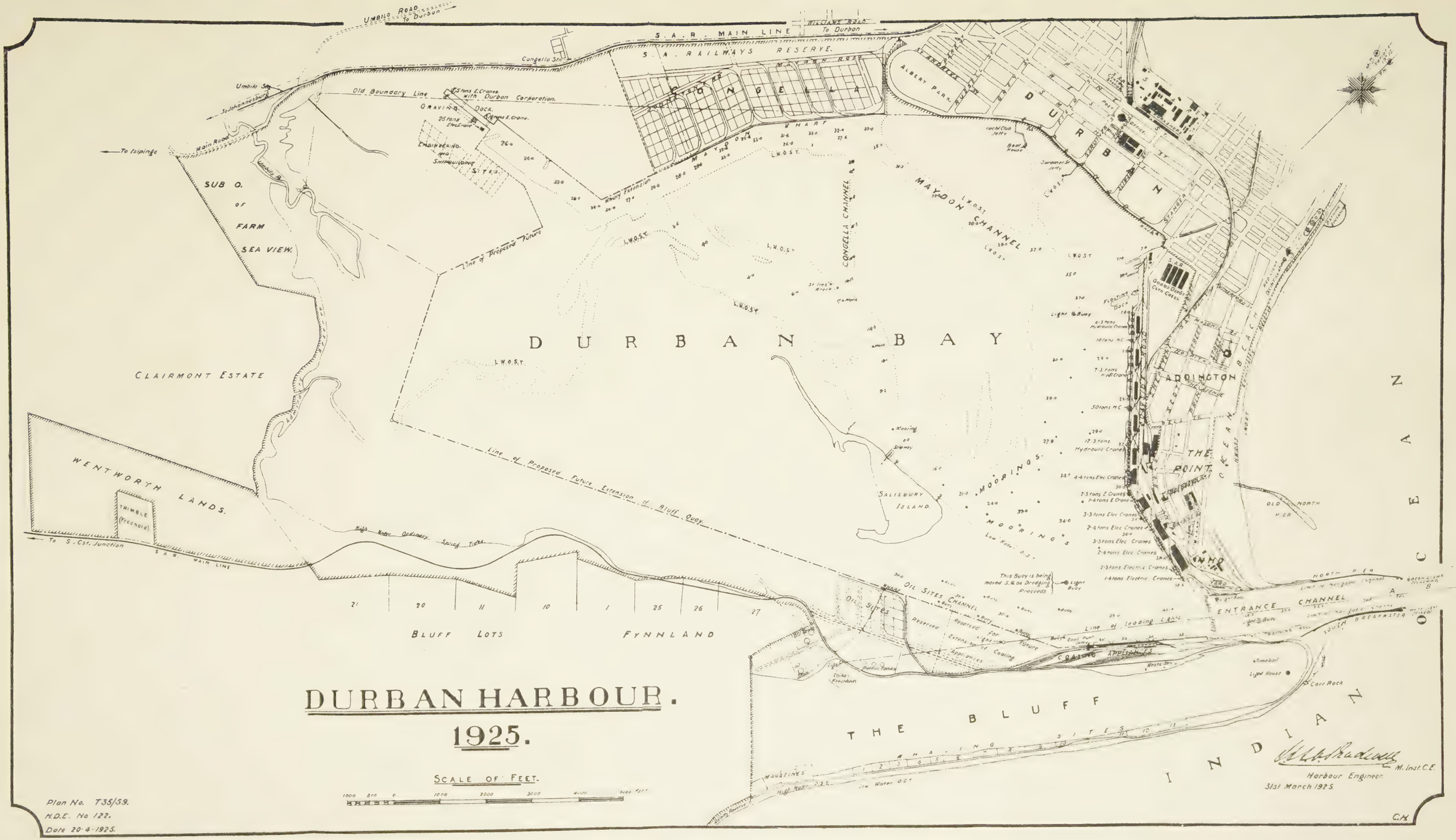


TABLE BAY HARBOUR

1925

S.A.R. MAIN LIN
A. RAILWAYS R
LONGE
BAN
DINGTON BEACH
THE POINT
OCEAN
OCEAN
OLD NORTH PIER
Bluff Quay
NORTH PIER
Limit of Navigable Channel
GREEN LIGHT (FLASHING)
"A"
B
CHANNEL
ENTRANCE
Limit of Navigable Channel
WHITE LIGHT (FIXED)
BREAKWATER
SOUTH TRAINING WALL
Light Buoy
Light Buoy
Timeball
Light House
Cave Rock
25
26
27
NNLAND
R.
M. Inst. C.E.
Harbour Engineer.
31st March 1925.
C.H.



DURBAN HARBOUR.

1925.

Plan No. T35/39.
H.D.E. No 122.
Date 20-4-1925.

C.H. Hadfield M. Inst. C.E.
Harbour Engineer.
31st March 1925.

DURBAN HARBOUR, PORT NATAL, 1925.

PARTICULARS

WHARFAGE.	Length.	DEPTH AT L.W.O.S.T.		CRANES.	
		Maximum.	Minimum.	No.	Capacity.
POINT.					
Quay Wall	6,266 ft.	38 ft. 6 in.	23 ft.	1 1 24 11 15 4 9 15	Hydraulic, 50 tons (fixed). Hydraulic, 10 tons (travelling). Hydraulic, 3 tons (travelling). Electric, 3 tons (travelling). Electric, 4 tons (travelling). Travelling cranes 10 tons (steam). Hydraulic wharf capstans. Electric wharf capstans.
Repairing Quay	600 ft.	22 ft.	22 ft.	—	—
Jetty	285 ft.	15 ft.	15 ft.	—	For use of coal barges only.
Fish Jetty	600 ft.	15 ft.	15 ft.	—	—
BLUFF.					
Quay Wall	2,365 ft.	35 ft.	30 ft.	1	Floating crane, 15 tons.
Timber Wharf	100 ft.	25 ft.	25 ft.	—	For Explosives.
CONGELLA.					
Timber and Reinforced Concrete Wharf	4,660 ft.	32 ft. 6 in.	25 ft.	—	—
Quay Wall (Graving Dock)	700 ft.	26 ft.	—	—	—

Shed and Storage Accommodation.—

Floor space	574,370 square feet.
Cubic capacity	8,337,561 cubic feet.
Cubic capacity of outside storage accommodation	**7,216,139 cubic feet.**

Average Working Depth at Entrance.—At L.W.O.S.T., average 37 feet outer channel, 32 feet inner channel.

Punts and Lighters.—Thirty lighters and punts of aggregate capacity of about 3,300 tons.

Tugs.—The port is equipped with five powerful tugs fitted with modern salvage and fire appliances and two smaller craft.

Repairing Facilities.—

Graving Dock.—Length, 1,150 feet; width at entrance, 110 feet; at coping, 138¼ feet, divided into two compartments, inner, 440 feet; outer, 660 feet; depth on sill H.W.O.S.T., 41 feet; L.W.O.S.T 35 feet.

Floating dock, 475 feet long by 60 feet, internal breadth, with lifting capacity of 6,500 tons.
Floating crane lifting capacity 15 tons.
Patent slip capable of lifting craft up to 150 tons.

Coaling Appliances.—Belt conveyor and bucket transporter coaling appliances are installed at the Bluff. These appliances are electrically driven, and capable of coaling five vessels simultaneously at the rate of 1,000 tons per hour. Coal is automatically weighed whilst loading. Capacity of dumpers, 100 tons and 80 tons respectively. Capacity of storage bins, 10,000 tons. Sites available in vicinity of appliances for stacking 70,000 tons of coal.

Oil Facilities.—The oil storage sites are located at Island View, where a timber wharf 490 feet in length exists, with a depth of 30 feet alongside. Benzine in bulk is discharged into tank direct from this wharfage per medium of 8 inch pipe lines. The Benzine Storage comprises three tanks of 1,250,000 gallons capacity each. There are three oil fuel tanks of a capacity of 2,000,000 gallons each erected at the oil sites, and fuel oil is pumped to these tanks per pipe lines laid from site to the Bluff Wharf in the vicinity of the coaling appliances dumper.

8. Lighthouses, etc.—The following list gives particulars in regard to the lighthouses, fog signals, whistle buoys, life-saving appliances, etc., under the control of the Union Government:—

LIGHTHOUSES, HARBOUR LIGHTS, ETC., ON THE SOUTH AFRICAN COAST.

Station.	Class of Light.	Candle Power.	Range of Light.	Remarks.
			Miles.	
SOUTH WEST AFRICA.				
Swakopmund.....	5th Order Dioptric.	21,000	20	Revolving white, two flashes every 10 secs.
Walvis Bay Harbour.	6th Order Dioptric.	200	6	Automatic red at end jetty, flash every 3 secs.
Walvis Bay, Pelican Point	6th Order Dioptric.	500	8	Automatic harbour light, white flash every 3 secs.
Diaz Point.....	3rd Order Dioptric.	120,000	18	Revolving white, flash every 4 secs.
,, ...	Subsidiary Light...	—	—	Fixed, with white and red sectors.
,, ...	Fog-syren.....	—	—	One blast every 20 secs.
CAPE PROVINCE.				
Port Nolloth.....	5th Order Dioptric.	4,000	13	Revolving white, flash every 5 secs., and rocket apparatus.
,, ...	Explosive Fog Signal	—	—	One explosion every 15 mins.
Hoetjes Point (Saldanha Bay)	6th Order Dioptric.	500	8	Automatic, flash every 3 secs., with red and white sectors.
Dassen Island.....	1st Order Dioptric..	180,000	18	Revolving white, flash 3 secs., eclipse 4 secs.; revolving white, flash 3 secs., eclipse 20 secs.; and wireless telegraph.
Robben Island.....	1st Order Dioptric..	38,000	18	Revolving white, flash 5 secs., eclipse 2 secs.
,, ...	Twin, 7-in. Diaphone	—	—	One blast every 20 secs.
Green Point (Capetown)	3rd Order Dioptric, 5-in. Diaphone	75,000	13¾	Revolving white, flash every 10 secs. One blast every 30 secs.
Table Bay (Breakwater)	6th Order Dioptric	500	10	Automatic red light, flash 2 secs., eclipse 8 secs.
,, ,,	Fog Bell.....	—	—	Strikes once every 6 secs.
Slangkop.....	1st Order Dioptric..	500,000	18	Revolving white, four flashes every 20 secs., and rocket apparatus.
Cape Point.....	1st Order Dioptric..	500,000	23	Revolving white flash 0·38 secs., eclipse 2·40 secs.; flash 0·38 secs., eclipse 8·23 secs; flash 0·38 secs., eclipse 8·23 secs; and rocket apparatus and signal station.
,, ...	Subsidiary Light...	—	—	Fixed red over bellows and anvil rocks.
Roman Rock (Simons Bay)	4th Order Dioptric.	5,000	12	White flash every 6 secs., automatic.
Kalk Bay Harbour..	6th Order Dioptric.	200	7	Automatic, flash 2·5 secs., eclipse 12·5 secs., white and red sectors.
Danger Point.....	1st Order Dioptric..	165,000	18	Revolving white, three flashes every 40 secs.
Cape L'Agulhus.....	1st Order Dioptric..	470,000	18	Revolving white, flash every 3 secs.; rocket apparatus and signal station.
Cape St. Blaize.....	4th Order Dioptric.	20,000	15	Revolving white, two flashes every 15 secs., and signal station.
,, ...	Explosive Fog Signal	—	—	One explosion every 10 mins., daytime only.
Mossel Bay Harbour Jetty	6th Order Dioptric.	200	8	Automatic, flash every 5 secs., red, white, and green sectors.
Cape St. Francis....	2nd Order Dioptric.	120,000	16¾	Revolving white, flash every 5 secs., and signal station.
Cape Receiffe.....	1st Order Dioptric..	125,000	15	Revolving white, flash every 60 secs., and signal station.
Algoa Bay Anchorage Lights	6th Order Dioptric.	500	7	Near light, red flash 4 secs., eclipse 1 sec., automatic.
,, ,,	6th Order Dioptric.	500	7	Distant light, white flash every sec., automatic.
Port Elizabeth.....	4th Order Dioptric.	5,000	12	Flash 2 secs., eclipse 8 secs., red and white sectors, wireless telephone and signal station.
Port Elizabeth (Dom Pedro Jetty)	6th Order Dioptric.	200	7	Automatic red, 3 flashes every 12 secs., indicating breakwater extension.
Bird Island.....	1st Order Dioptric..	180,000	16	Revolving white, flash 3 secs., eclipse 4 secs.; flash 3 secs., eclipse 20 secs.; and wireless telephone.
Great Fish Point....	1st Order Dioptric..	600,000	20	Revolving white, flash every 10 secs.
Hood Point.....	1st Order Dioptric..	312,000	20	Revolving white, four flashes every 40 secs., and signal station.
East London (Beach)	6th Order Dioptric.	200	6	Automatic white, flash every 3 secs.
East London Harbour (Breakwater)	4th Order Dioptric.	2,000	10	Automatic white, flash 2 secs., eclipse 8 secs.
East London (Eastern Breakwater)	4th Order Dioptric.	2,000	6	Automatic: Green, 3 flashes every 9 secs.

LIGHTHOUSES, HARBOUR LIGHTS, ETC., ON THE SOUTH AFRICAN COAST—*continued.*

Station.	Class of Light.	Candle Power	Range of Light.	Remarks.
			Miles.	
Bashee River.....	—	—	—	In course of erection.
Cape Hermes.....	4th Order Dioptric.	30,000	19½	Revolving white, flash every 3 secs., and signal station.
NATAL.				
Port Shepstone.....	5th Order Dioptric.	27,000	15	Revolving white, flash every 10 secs., and signal station.
Green Point.....	2nd Order Dioptric.	240,000	23	Revolving white, two flashes every 15 secs.
„	Subsidiary Light...	—	—	Fixed red over Aliwal Shoals.
The Bluff (Durban)..	3rd Order Dioptric.	150,000	23	Revolving white, three flashes every 20 secs.
Port Natal Leading Lights	4th Order Dioptric.	2,000	6	Near light, red flash every sec., automatic.
„ „	5th Order Dioptric.	2,000	6	Distant light, white flash 4 secs., eclipse 1 sec., automatic.
Port Natal (Anchorage)	5th Order Dioptric.	2,000	5	Complex group: Automatic red flash, 3 secs., eclipse 2·7 secs., Automatic red flash, 3 secs., eclipse 2·7 secs, Automatic red flash 3·0 secs., eclipse 6·0 secs.
Port Natal (South Breakwater Light)	Electric.....	200	3	Fixed white light.
Port Durnford.....	4th Order Dioptric.	6,000	15	Automatic white, flash every 5 secs.
Cape St. Lucia.....	4th Order Dioptric.	6,000	15	Automatic white, two flashes every 10 secs.
North Pier Light....	Electric.....	200	4	Occulting green light, flash 3 secs., eclipse 1 sec.

§ 2. Shipping.

1. **Shipping from 1910.***—The following tables (i) and (ii) give particulars as to the number and tonnage of vessels entered at Union harbours from 1910. These figures represent the gross number of vessels entered and cleared, and not the net number, that is the actual number of separate vessels calling at ports of the Union and enumerated once only. Table (iii) gives the number and tonnage of vessels under the heading of nationality entered during the same period:—

(i) NUMBER AND TONNAGE OF VESSELS ENTERED AT UNION HARBOURS, 1910 TO 1924.

YEAR.	STEAM—COASTWISE.		STEAM—OVERSEA.		SAILING.		TOTAL.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
1910...	2,339	6,284,238	1,724	5,091,944	101	118,673	4,164	11,494,855
1911...	2,522	7,124,107	1,744	5,339,447	77	89,154	4,343	12,552,708
1912...	2,554	7,155,568	1,479	4,957,140	73	92,592	4,106	12,205,300
1913...	2,738	7,582,547	1,539	5,258,827	72	98,080	4,349	12,939,454
1914...	2,478	6,571,932	1,449	4,955,281	81	97,364	4,008	11,624,577
1915...	2,213	4,609,569	1,032	3,223,573	77	104,159	3,322	7,937,301
1916...	2,557	5,369,350	1,723	5,830,354	77	115,105	4,357	11,314,809
1917...	2,318	4,223,882	1,425	4,899,017	145	129,150	3,888	9,252,049
1918...	1,553	2,476,213	924	2,861,364	339	192,135	2,816	5,529,712
1919...	1,838	3,975,295	998	3,558,729	363	126,400	3,199	7,660,424
1920...	2,319	5,682,123	1,133	4,001,936	280	98,896	3,732	9,782,955
1921...	2,144	6,003,939	1,182	4,157,601	241	48,889	3,567	10,210,429
1922...	2,533	7,019,413	1,192	4,459,326	202	39,812	3,927	11,518,551
1923...	2,842	7,550,327	1,336	5,105,272	199	37,130	4,377	12,692,729
1924...	2,899	7,757,952	1,276	4,964,942	198	19,412	4,373	12,742,306

* A table showing the number and tonnage of vessels entered at Cape and Natal ports from 1826 to 1909 will be found in the sixth and previous issues of this *Year Book*.

(ii) VESSELS ENTERED AT HARBOURS OF THE UNION, 1910 TO 1924.

(*a*) NUMBER.

Year.	Cape Town.	Mossel Bay.	Port Elizabeth.	East London.	Durban.	Other Ports.	Total.
1910.....	989	243	527	505	1,589	311	4,164
1911.....	1,140	272	549	554	1,550	278	4,343
1912.....	1,311	252	515	510	1,273	245	4,106
1913.....	1,386	248	569	538	1,348	260	4,349
1914.....	1,321	206	505	488	1,255	233	4,008
1915.....	1,210	157	368	381	988	218	3,322
1916.....	1,777	220	329	401	1,389	241	4,357
1917.....	1,956	100	233	258	1,126	215	3,888
1918.....	1,373	55	183	238	853	114	2,816
1919.....	1,400	71	275	327	998	128	3,199
1920.....	1,566	93	385	447	1,084	157	3,732
1921.....	1,341	103	446	465	1,099	113	3,567
1922.....	1,425	126	528	559	1,173	116	3,927
1923.....	1,703	140	548	590	1,232	164	4,377
1924.....	1,701	151	561	605	1,197	158	4,373

(*b*) TONNAGE.

1910.....	2,910,625	778,838	1,753,115	1,573,567	4,221,143	257,567	11,494,855
1911.....	3,490,131	885,015	1,973,119	1,788,587	4,231,412	184,444	12,552,708
1912.....	3,993,067	828,715	1,895,151	1,746,238	3,600,422	141,707	12,205,300
1913.....	3,965,079	842,628	2,064,492	1,906,076	4,003,624	157,555	12,939,454
1914.....	3,531,091	669,149	1,822,930	1,697,553	3,750,671	123,183	11,624,577
1915.....	2,438,383	489,552	1,152,050	1,131,756	2,617,412	108,148	7,937,301
1916.....	4,551,200	454 409	1,024,445	1,032,618	4,116,619	135,518	11,314,809
1917.....	4,183,792	215 589	€38,230	595,604	3,458,857	159,977	9,252,049
1918.....	2,347,000	108,981	445,750	414,346	2,155,751	57,884	5,529,712
1919.....	2.767,822	149,502	894,069	825,851	2,961,828	61,352	7,660,424
1920.....	3,337,440	279,441	1,441,380	1,402,451	3,244,341	77,402	9,782,955
1921.....	3,100,719	358,876	1,697,641	1,597,097	3,401,892	54,204	10,210,429
1922.....	3,362,174	432,427	2,027,138	1,913,892	3,700,559	82,361	11,518 551
1923.....	4,007,984	459,656	2.143,453	2,043,305	3,959,489	78,842	12,692,729
1924.....	3,964,308	530,707	2,252,773	2,095,572	3,827,896	71,050	12,742,306

(iii) (*a*) NUMBER OF VESSELS OF VARIOUS NATIONALITIES ENTERED * AT UNION HARBOURS FROM OTHER COUNTRIES, 1910 TO 1924.

Year.	British.	American.	Scandinavian.	French.	German.	Japanese.	Portuguese.	Dutch.	Other Nationalities.	Total.
1910.	1,443	5	97	20	201	2	27	3	22	1,820
1911.	1,389	3	127	19	218	1	29	2	17	1,805
1912.	1,121	3	127	23	224	3	33	—	9	1,543
1913.	1,179	3	123	22	230	4	36	—	10	1,607
1914.	1,176	7	127	14	137	3	31	3	15	1,513
1915.	897	7	107	11	—	7	44	21	6	1,100
1916.	1,372	13	112	21	—	100	55	101	15	1,789
1917.	1,163	22	120	10	—	84	41	11	47	1,498
1918.	702	35	102	5	—	94	43	5	50	1,036
1919.	867	26	44	3	—	41	52	36	6	1,075
1920.	936	35	80	9	1	42	37	32	28	1,200
1921.	957	20	79	14	23	38	25	43	18	1,217
1922.	915	20	101	12	56	24	14	53	21	1,216
1923.	1,057	27	83	7	67	25	17	67	15	1,365
1924.	964	28	89	6	64	27	31	68	16	1,293

* Firs ports of call.

(*b*) TONNAGE OF VESSELS ENTERED* AT UNION HARBOURS, 1910 TO 1924.

Year.	British.	American.	Scandinavian.	French.	German.	Japanese.	Portuguese.	Dutch.	Other Nationalities.	Total.
1910.	4,308,525	5,873	153,887	32,399	561,173	5,960	80,365	6,730	51,076	5,205,988
1911.	4,434,443	3,197	186,283	29,061	637,376	2,837	76,385	5,759	42,103	5,417,444
1912.	3,988,397	1,530	212,386	41,186	695,445	9,485	80,487	—	15,681	5,044,597
1913.	4,238,825	4,174	217,775	45,247	723,458	13,903	90.378	—	20,034	5,353,794
1914.	4,185,602	10,408	232,386	34,385	450,262	10,305	86,714	8,536	28,324	5,046,922
1915.	2,898,405	8,903	180,150	18,963	—	19,875	107,431	80,208	9,280	3,323,215
1916.	4,656,415	32,660	216,232	43,574	—	430,229	147,915	382,049	24,160	5,933,234
1917.	4,058,617	26,173	243,407	18,714	—	369,188	135,679	39,305	106,287	4,997,370
1918.	2,119,501	41,392	220,613	8,215	—	353,066	112,415	16,000	118,138	2,989,440
1919.	3,061,901	41,244	92,310	4,955	—	155,979	137,347	143,040	10,628	3,647,404
1920.	3,360,063	37,199	170,882	22,595	2,960	153,035	101,880	112,777	73,526	4,084,917
1921.	3,443,597	66,574	201,235	31,001	83,347	128,133	50,931	143,081	50,784	4,198,683
1922.	3,562,397	64,512	271,017	19,721	208,685	85,079	26,455	195,633	56,957	4,490,456
1923.	4,117,010	94,774	208,755	9,432	261,014	89,517	61,421	253,336	41,936	5,137,195
1924.	3,866,020	97,951	237,810	15,168	250,656	97,641	111,911	264,733	38,405	4,980,295

* First ports of call.

2. **Passengers and Cargo.**—Particulars are given in the following tables of passengers landed and embarked and live stock and cargo handled (i) at all Union harbours from the year 1910, and (ii) at the several ports of the Union for the latest available year :—

(i) PASSENGERS, LIVE STOCK, AND CARGO DEALT WITH AT UNION HARBOURS 1910 TO 1923-24.

Year.	Passengers.		Live Stock.		Cargo.			
	Landed.	Embarked.	Landed.	Shipped.	Landed.	Shipped.	Transhipped.	Total.
	No.	No.	No.	No.	Tons.	Tons.	Tons.	Tons.
1910	53,593	44,918	*	*	2,450,424	2,645,514	17,125	5,113,063
1911.....	62,265	50,344	4,122	3,804	2,492,918	2,669,616	22,954	5,185,488
1912.....	49,177	45,913	5,212	2,603	2,891,711	2,960.052	31,417	5,883,180
913.....	36,502	31,374	14,486	4,231	3,012,299	2,892,337	22,842	5,927,478
1914.....	39,497	43,718	13,713	19,963	2,498,568	2,687,383	28,726	5,214,677
1915.....	21,782	28,561	13,994	61,144	2,137,606	2,751,674	37,518	4,926,798
1916.....	19,853	40,462	5,069	3,508	1,897,289	3,211,427	33,737	5,142,453
1917 (Jan. to March)	3,901	2,005	318	357	392,384	772,680	11,540	1,176,604
1917-18.....	9,814	13,072	1,316	945	1,478,895	3,173,932	28,655	4,681,532
1918-19.....	7,565	10,550	1,059	2,831	1,384,548	2,597,698	13,967	3,996,213
1919-20.....	39,300	34,571	1,944	658	1,485,499	2,927,506	6,680	4,419,685
1920-21.....	70,548	38,072	3,644	1,439	2,236,397	3,050,171	9,090	5,295,658
1921-22†....	72,171	42,421	1,280	1,172	1,423,544	3,847,474	10,439	5,281,457
1922-23†....	69,899	44,718	2,025	1,110	1,822,075	3,658,843	19,086	5,500,004
1923-24†. ..	73,919	43,275	1,518	3,949	2,267,147	4,617,337	13.357	6,897,841

* Not available. † Including Luderitz (S.W.A.).

(ii) PASSENGERS, LIVE STOCK, AND CARGO DEALT WITH AT VARIOUS UNION HARBOURS, 1923–24.

Heading.	Cape Town.	Mossel Bay.	Port Elizabeth.	East London.	Durban.	* Other Union Harbours.	Total.
PASSENGERS—							
Landed.....No.	32,410	195	7,202	6,935	20,761	6,416	73,919
Embarked...No.	15,628	124	905	8,160	12,285	6,173	43,275
TOTAL.....No.	48,038	319	8,107	15,095	33,046	12,589	117,194
LIVE STOCK—							
Landed.....No.	708	—	52	11	729	18	1,518
Shipped.....No.	1,973	—	1	11	653	1,311	3,949
TOTAL.....No.	2,681	—	53	22	1,382	1,329	5,467
CARGO—							
Landed.....Tons	655,778	27,420	338,994	228,111	917,107	99,737	2,267,147
Shipped....Tons	690,366	6,252	160,427	192,024	3,491,361	76,907	4,617,337
Transhipped.Tons	8,343	—	204	1,159	1,902	1,749	13,357
TOTAL....Tons	1,354,487	33,672	499,625	421,294	4,410,370	178,393	6,897,841

* Includes Luderitz (S.W.A.).

3. **Coal Bunkered and Exported.**—The subjoined table shows the quantity of coal bunkered and exported at Union harbours and also via Delagoa Bay from the year 1910 :—

SOUTH AFRICAN COAL BUNKERED AND EXPORTED OVERSEA FROM UNION PORTS AND DELAGOA BAY, 1910 TO 1923–24.

YEAR.	CAPE TOWN.		DURBAN.		OTHER PORTS (including Delagoa Bay).		TOTAL.	
	Bunkered.	Exported.	Bunkered.	Exported.	Bunkered.	Exported.	Bunkered.	Exported.
	Tons.*	Tons.*	Tons *	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*
1910...	83,510†	67	1,395,649	57,046	124,068	34,990	1,603,227	92,103
1911...	184,912	—	1,426,319	94,116	95,107	22,150	1,706,338	106,266
1912...	341,781	560	1,209,606	174,087	152,756	215,323	1,704,143	389,970
1913...	278,561	1,008	1,196,460	355,901	245,142	436,960	1,720,163	793,869
1914...	273,328	190	1,173,853	207,033	224,912	361,853	1,672,093	569,076
1915...	344,933	2,470	930,687	219,788	138,735	324,731	1,414,355	546,989
1916...	595,455	5,930	1,519,182	165,167	352,862	392,446	2,467,499	563,543
1917 (Jan.–Mar.)	147,923	146	401,374	14,979	100,215	95,039	649,512	110,164
1917–18	547,998	11,985	1,211,024	261,930	432,512	447,967	2,191,534	721,882
1918–19	276,154	30,193	608,273	704,474	257,110	589,433	1,141,537	1,324,100
1919–20	335,173	8,382	971,063	439,749	265,435	441,697	1,571,671	889,828
1920–21	359,062	13,670	1,122,538	749,785	414,730	842,594	1,896,330	1,606,049
1921–22	218,447	1,108	1,059,484	1,014,488	314,797	750,952	1,592,728	1,766,548
1922–23	244,057	482	1,103,274	1,150,201	199,473	272,861	1,546,804	1,423,544
1923–24	353,799	823	1,192,251	1,453,678	297,166	534,157	1,843,216	1,988,658

* 2000 lb.

† Includes Welsh coal. From 1912 to 1919–20, 131,052 tons of Welsh coal were exported from Cape Town. This tonnage is not included in the figures given above.

4. **Register of Shipping.**—The statement given hereunder shows the number and net tonnage of steam and sailing vessels entered on the registers at the ports of Cape Town, Port Elizabeth, East London, and Durban at the end of each of the years specified :—

REGISTER OF SHIPPING, UNION, 1919 TO 1924.

Port.	1919.		1920.		1921.		1922.		1923.		1924.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Cape Town—												
Steam	50	7,260	53	7,430	66	19,646	68	17,873	64	10,362	67	10,500
Sailing	12	4,497	12	4,497	14	3,275	14	2,149	14	2,149	14	2,149
TOTAL	62	11,757	65	11,927	80	22,921	82	20,022	78	12,511	81	12,649
Port Elizabeth—												
Steam	11	124	11	124	11	124	11	124	11	124	11	124
Sailing	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	11	124	11	124	11	124	11	124	11	124	11	124
East London—												
Steam	8	2,151	8	2,151	7	1,683	6	1,678	6	1,678	6	1,678
Sailing	1	1,058	—	—	—	—	—	—	—	—	—	—
TOTAL	9	3,209	8	2,151	7	1,683	6	1,678	6	1,678	6	1,678
Durban—												
Steam	31	8,933	32	7,256	34	6,767	34	7,049	38	8,019	38	8,019
Sailing	—	—	1	509	2	893	1	1,184	1	1,184	2	1,499
TOTAL	31	8,933	33	7,765	36	7,660	35	8,233	39	9,203	40	9,518
GRAND TOTAL—												
Steam	100	18,468	104	16,961	118	28,220	119	26,724	119	20,183	122	20,321
Sailing	13	5,555	13	5,006	16	4,168	15	3,333	15	3,333	16	3,648
TOTAL	113	24,023	117	21,967	134	32,388	134	30,057	134	23,516	138	23,969

CHAPTER XX.

RAILWAYS AND LAND TRANSPORTATION.

§ 1. Railway Development in South Africa.

1. **General.**—In the first three issues of the *Year Book*, an account was given of the more important stages of railway development in the Union. The first table in § 3 below gives the mileage of Government and private lines from the year 1910 onwards, while the second table furnishes particulars regarding the mileage of Government railways in each Province from the year 1873.

2. **Comparison with other Dominions.**—The following table gives comparative figures regarding mileage of open line, mileage of line per 1,000 square miles of territory, and mileage of open line per 1,000 of estimated population for Australia, Canada, New Zealand, and the Union at the latest date for which particulars are available :—

Heading.	Australia. (30th June, 1923.)	Canada. (31st Dec., 1922.)	New Zealand. (31st March, 1924.)	Union of South Africa.* (31st March, 1924.)
Mileage of open line	26,711	39,773	3,188	**11,677**
Mileage of line per 1,000 square miles	8·98	11·04	30·69	**14·70**
Mileage of line per 1,000 of estimated population—				
European	4·69	4·53	2·47	**7·16**
All Races	4·69	4·53	2·37	**1·55**

* Including South West Africa.

3. **Railway Construction Acts, 1922, 1924, and 1925.**—*Act No.* 30 *of* 1922, provided for the construction and equipment of the following lines of railway :—

SCHEME OF RAILWAY CONSTRUCTION UNDER ACT No. 30 OF 1922.

Particulars.	Approximate Length.	Estimated Cost.
	Miles.	£
†*Belmont to Douglas	53	198,114
*Dunswart to Apex, main line deviation via Benoni	4	115,461
Ermelo (Buhrmanns-Tafelkop) to Lothair	27	125,577
†Fort Beaufort to Balfour (2-ft. gauge)	23	65,000
Frankfort to Villiers, thence to a point on the Transvaal-Natal Main Line	51	269,420
*Franklin to Kokstad	25½	132,192
*Franklin to Matatiele via Cedarville	47½	225,768
George to Knysna	42	296,820
†Harrismith to Warden	36½	196,059
†*Heilbron to Petrus Steyn	31½	145,656
†*Hercules to Magaliesburg	50½	257,196
*Kamfersdam to Winters Rush	35	130,410
†*Klipdale to Bredasdorp	24	101,520
†*Lydenburg to Olifantspoortje via Ohrigstad	71	398,168
†Nylstroom to Vaalwater	43½	187,468
†*Oudtshoorn to Calitzdorp	34	167,042
†*Rustenburg to Boschhoek	17	64,141
†Senekal to Marquard	30	170,100
†*Settlers to Tuinplaats	14	49,000
†Touws River to Ladismith	89	445,000
†Upington to Kakamas via Keimoes (2-ft. gauge)	56	113,000
*Zastron to Wepener	46	234,508
*Rapenburg-Vygekraal Native Location line	2	12,924
TOTAL	853	4,100,544

* Opened for public traffic prior to 31st July, 1925. The remaining lines are under construction.
† Agricultural railway.

The Zululand Railway Construction Act, 1924, authorized the building of a railway from Matubatuba (Natal North Coast line) to the south bank of the Pongola River, 88 miles, at an estimated cost of £419,760. The construction of the line is in progress.

Act No. 33 *of* 1925 provided for the construction and equipment of the following lines of railway :—

RAILWAY CONSTRUCTION UNDER ACT No. 33 OF 1925.

Particulars.	Approximate Length.	Estimated Cost.
	Miles.	£
*Addo to Kirkwood	21¼	87,550
*Balfour to Seymour (2-ft. gauge)	8	28,104
*Bothaville to Bultfontein	78	351,000
*Brits to Beestekraal	28½	132,810
*Ceres to Prince Alfred Hamlet	6½	37,570
*Citrus to Plaston	18	65,394
*Derwent to Blinkwater	41	223,860
*Empangeni to Nkwaleni	40	183,200
*Ficksburg to Groenfontein	17	107,610
*Greytown Branch to Rietvlei	24	131,520
*Hermon to Porterville	34	187,680
*Imvani to St. Marks	22	102,586
*Joubertsdal to Witfontein	52	255,840
*Klaver to Bitterfontein	91½	466,009
*Klerksdorp to Maquassi *Vermaas to Ottosdal	110	535,060
*Martindale to Southwell	27	142,371
*Molteno to Jamestown	44	233,200
*Naboomspruit to Zebediela	52½	154,605
*New England to Barkly East	19	147,174
*†Ondekaremba to Witvlei	86	348,300
*Parys to Vredefort	10	48,700
*Petrus Steyn to Lindley Road	37	183,520
*Potchefstroom to Losberg	31½	146,696
*Somerset East to Bruintjes Hoogte	21½	106,719
*Winters Rush to Koopmansfontein	29	123,511
TOTAL	949½	£4,530,589

* These are all agricultural railways.
† South West Africa.

4. **Electrification of Railways.**—Act No. 30 of 1922 provides for the electrification of any line of railway in respect of which moneys have been appropriated by Parliament for that purpose, and for the erection of the necessary power stations and equipment. Provision is also made for the use, subject to existing rights, of the water in public streams for the purpose of working electric generating stations.

In terms of Act No. 42 of 1922, provision has been made for power for electric traction purposes to be generated and supplied by the Electricity Supply Commission. The Electricity Supply Commission will not only furnish the Railway Administration with power for railway requirements, but will generally deal with the co-ordination of the production of electric energy throughout the Union for commercial and municipal purposes.

A number of schemes for the electrification of portions of the South African railway system have been investigated, and in 1922 the Government decided upon the electrification of the section Glencoe to Pietermaritzburg on the Natal main line, together with the Howick branch line, a distance of 173½ route miles.

The original scheme entailed the electrification of approximately 244 track miles, but in consequence of the development of traffic, it has been found necessary to electrify additional lines consisting mainly of sidings, goods yards, etc., and to provide and electrify a new marshalling yard at Masons Mill, which is situated on the south side of Pietermaritzburg. The track electrified has consequently increased to approximately 310 miles.

The Natal main line carries a heavy goods service in addition to passenger traffic. The present electrification scheme, which is nearing completion, is designed for dealing with a maximum daily tonnage of 30,000 in the coastwards direction, in addition to passenger traffic.

Construction work was commenced in September, 1922, and electric operation was first started between Daimana and Chieveley in October, 1924.

A full electric service was inaugurated on the first section, from Daimana to Mooi River, on the 28th May, 1925; on the second section, from Daimana to Glencoe, on the 27th July, 1925. Electric working on the third section, from Mooi River to Pietermaritzburg, was gradually introduced and finally extended to Pietermaritzburg (including Masons Mill) on the 18th April, 1926. thus so far completing the scheme as to permit electric working of all trains with a few minor exceptions from Glencoe to Pietermaritzburg.

The power station, which is situated on the Tugela River at Colenso, consists of a steel frame building with brick filling. The equipment consists of eight boilers, each of which is capable of producing 60,000 lb. of steam per hour at a pressure of 270 lb. per square inch above atmosphere, superheated to 700° F. There are five turbo-alternators, each capable of a continuous output of 12,000 kilowatts at 6,000 volts three-phase, and an output of 20,000 kilowatts for two minutes.

Five step-up transformers for raising the voltage from 6,600 to 88,000, which is the pressure of transmission, are located in an outdoor static sub-station adjacent to the power station.

Two separate transmission lines, about half a mile apart, convey power at 88,000 volts to the step-down traction sub-stations along the electrified route. There are twelve traction sub-stations situated at varying distances along the electrified section, and the equipment, which is automatic, transforms the current from 88,000 to 6,600 volts. Current is then converted by synchronous motors from 6,600 three-phase a.c. to direct current at 3,000 volts, the pressure at which it is conveyed to the overhead contact line for "feeding" the electric locomotives.

The overhead equipment of the permanent way consists of a copper catenary supporting a copper contact wire by means of droppers. The track structures are steel lattice masts, erected on concrete foundations.

Seventy-eight electric locomotives have been supplied and additional locomotives are being obtained as traffic increase necessitates. The erection of the seventy-eight units was undertaken in the Administration's workshops at Pietermaritzburg, the contractors utilizing the Administration's labour. The locomotives are of the double bogie articulated type, driven by four motors carried on the bogies. Each of the motors is of 300 h.p., and the locomotive is capable of exerting a tractive force of 23,000 lb. at the one-hour rating, and a continuous tractive effort of 16,400 lb. The locomotives are regarded as "units"; either one or two units being used for passenger trains, and three units for a heavy goods train. Whether one, two, or three units are used for hauling a train, only one crew, i.e. a driver and an assistant, is necessary. The locomotives are fitted with electro-pneumatic control, and are so arranged that current can be returned to the overhead line when running on down gradients; at the same time the speed of the trains is retarded without the use of the wheel brakes.

With three electric units coupled together, loads of 1,640 tons are hauled between Glencoe and Ladysmith, and 1,430 tons south of Ladysmith, or approximately double the ordinary loads under steam traction.

It is the practice, as far as possible, to dispatch block loads of 1,500 tons from Glencoe, which are hauled to Pietermaritzburg by a three-unit locomotive.

The Colenso power scheme and distribution system have been designed to provide current at various points along the electrified route for railway, municipal, and industrial purposes. Under the provisions of Act No. 42 of 1922, negotiations have been concluded by the Electricity Supply Commission with a number of municipalities and local boards to supply them with electricity from Colenso, and under this arrangement current is now being supplied to the Ladysmith and Estcourt Municipalities and the Glencoe Local Board. Negotiations with other prospective consumers are proceeding.

The Administration has also commenced the electrification of certain of the Capetown suburban lines, i.e. from Capetown to Simonstown and from Monument to Sea Point. Unlike the electrification of the Natal main line, which deals mainly with goods traffic, electric traction will be introduced on the Capetown suburban lines for passenger traffic only. No electric locomotives will be required on this section, as trains will consist of motor coaches and trailers. This multiple-unit system has proved successful, and is generally adopted for intensive suburban traffic.

Work is proceeding on this scheme and contracts have been arranged for new motor coaches and trailers. Tenders are being obtained for the overhead equipment of the permanent way and for the provision of certain transmission and distribution lines.

The Electricity Supply Commission will be responsible for the erection of the power station, sub-stations, and distribution lines for the Capetown scheme and will supply current to the Administration for traction and other purposes. Power will be transmitted from the sub-stations to the overhead contact wires at 1,500 volts direct current for "feeding" the electric rolling stock.

By the middle of 1926, the Commission's construction work had been commenced and was making good progress.

§ 2. Gauge of Railways.

1. **General.**—The first three issues of the *Year Book* contained an account of the circumstances leading to the adoption of the 3 ft. 6 in. gauge as the standard gauge throughout South Africa and of the policy followed in constructing narrow-gauge branch lines in certain instances.

At the 31st March, 1924, there were 1,108 miles of narrow-gauge railway in the Union and South West Africa. Tables in § 3 give details of the mileage of line of various gauges in the Union and in each Province and South West Africa at that date.

§ 3. Construction and Open Mileage.

1. Open Mileage.—The following table gives figures showing the open mileage of Government and private railway lines in each Province at the 31st December, 1910 to 1916, and at the 31st March, 1918, and succeeding years :—

OPEN MILEAGE OF GOVERNMENT AND PRIVATE RAILWAY LINES IN EACH PROVINCE AT 31st DECEMBER, 1910 TO 1916, AND 31st MARCH, 1918, AND SUCCEEDING YEARS.

Year.	Cape of Good Hope		Natal		Transvaal.		Orange Free State.		Union.		Total.
	Govt. Lines.	Private Lines.	Govt. Lines.	Private Lines.	Govt. Lines.	Private Lines.	Govt. Lines.	Private Lines.	Govt. Lines.	Private Lines.	
	Miles.	Miles	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1910....	3,329	496	950	101	1,725	—	987	4	6,991	601	7,592
1911....	3,398	496	1,004	101	2,020	—	1,076	4	7,498	601	8,099
1912....	3,493	496	1,004	101	2,197	—	1,106	4	7,800	601	8,401
1913....	3,639	453	1,068	101	2,362	—	1,163	4	8,232	558	8,790
1914....	3,706	453	1,142	101	2,436	—	1,180	4	8,464	558	9,022
1915....	4,073	453	1,180	101	2,492	—	1,265	4	9,010	558	9,568
1916....	4,190	454	1,231	101	2,644	—	1,342	4	9,407	559	9,966
March 31st.											
1918....	4,226	454	1,290	101	2,644	—	1,342	4	9,502	559	10,061
1919....	4,254	454	1,308	101	2,644	—	1,342	4	9,548	559	10,107
1920....	4,254	454	1,308	101	2,644	—	1,342	4	9,548	559	10,107
1921....	4,254	454	1,325	84	2,644	—	1,342	4	9,565	542	10,107
1922....	4,254	454	1,364	84	2,644	7	1,342	4	9,604	549	10,153
1923....	4,254	454	1,364	84	2,644	7	1,342	4	9,604	549	11,558*
1924....	4,342	454	1,378	84	2,668	—	1,342	4	9,730	542	11,677*
1925....	4,520	454	1,378	84	2,808	—	1,420	4	10,126	542	12,094*

* Including South West Africa system—

	Government Lines.	Private Lines.
1923 and 1924.....	1,331 miles	74 miles.
1925.....	1,352 miles	74 miles.

2. Mileage of Government Railways.—The following table gives the mileage of new railway lines in each Province opened in each year, and the total mileage of Government line at the end of each year, from the year 1873 :—

MILEAGE OF NEW RAILWAY LINE IN EACH PROVINCE OPENED IN EACH YEAR AND TOTAL MILEAGE OF GOVERNMENT LINE OPEN AT END OF EACH YEAR, FROM THE YEAR 1873.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.
1873....	—	57	—	—	—	—	—	—	—	57
1874....	—	57	—	—	—	—	—	—	—	57
1875....	87	144	—	—	—	—	—	—	87	144
1876....	105	249	—	—	—	—	—	—	105	249
1877....	150	399	5	5	—	—	—	—	155	404
1878....	157	556	22	27	—	—	—	—	179	583
1879....	240	796	26	53	—	—	—	—	266	849
1880....	111	907	47	100	—	—	—	—	158	1,007
1881....	55	962	—	100	—	—	—	—	55	1,062
1882....	8	970	—	100	—	—	—	—	8	1,070
1883....	243	1,213	—	100	—	—	—	—	243	1,313
1884....	241	1,454	18	118	—	—	—	—	259	1,572
1885....	146	1,600	59	177	—	—	—	—	205	1,777
1886....	—	1,600	44	221	—	—	—	—	44	1,821
1887....	—	1,600	—	221	—	—	—	—	—	1,821
1888....	—	1,600	—	221	—	—	—	—	—	1,821
1889....	9	1,609	41	262	—	—	—	—	50	1,871
1890....	161	1,770	37	299	—	—	121	121	319	2,190
1891....	—	1,770	36	335	—	—	—	121	36	2,226
1892....	122	1,892	36	371	—	—	264	385	422	2,648
1893....	—	1,892	—	371	—	—	—	385	—	2,648
1894....	—	1,892	—	371	—	—	—	385	—	2,648
1895....	—	1,892	3	374	—	—	—	385	3	2,651
1896....	—	1,892	8	382	—	—	—	385	8	2,659

MILEAGE OF NEW RAILWAY LINES IN EACH PROVINCE OPENED IN EACH YEAR AND TOTAL MILEAGE OF GOVERNMENT LINE OPEN AT END OF EACH YEAR, FROM THE YEAR 1873—(*continued*).

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		South West Africa.	
	Mileage Opened during Year.	Total Mileage at End of Year	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.
1897.....	7	1,899	46	428	—	—	—	385	53	2,712	—	—
1898.....	91	1,990	7	435	—	—	26	411	124	2,836	—	—
1899.....	—	1,990	29	464	—	—	31	442	60	2,896	—	—
[1] 1900.....	99	2,089	57	521	—	—	—	442	156	3,052	—	—
[2] 1901.....	46	2,135	21	542	—	—	—	442	67	3,119	—	—
1902.....	183	2,318	45	587	889	889	21	463	1,138	4,257	—	—
1903.....	197	2,515	105	692	18	907	38	501	358	4,615	—	—
1904.....	149	2,664	37	729	45	952	46	547	277	4,892	—	—
1905.....	321	2,985	42	771	127	1,079	135	682	625	5,517	—	—
1906.....	206	3,191	29	800	156	1,235	98	780	489	6,006	—	—
[3] 1907.....	65	3,256	41	841	286	1,521	104	884	496	6,502	—	—
[4] 1908.....	11	3,267	97	938	59	1,580	96	980	263	6,765	—	—
[5] 1909.....	54	3,321	12	950	6	1,586	7	987	79	6,844	—	—
May 31, [6] 1910.....	—	3,329	—	950	—	1,723	—	987	—	6,989	—	—
1910.....	8	3,329	—	950	139	1,725	—	987	147	6,991	—	—
1911.....	69	3,398	54	1,004	295	2,020	89	1,076	507	7,498	—	—
1912.....	95	3,493	—	1,004	177	2,197	30	1,106	302	7,800	—	—
[7] 1913.....	146	3,639	64	1,068	165	2,362	57	1,163	432	8,232	—	—
1914.....	67	3,706	74	1,142	74	2,436	17	1,180	232	8,464	—	—
[8] 1915.....	367	4,073	8	1,180	56	2,492	85	1,265	546	9,010	—	—
1916.....	117	4,190	51	1,231	152	2,644	77	1,342	397	9,407	—	—
1917.....	— 7	4,183	59	1,290	—	2,644	—	1,342	52	9,459	—	—
1918.....	71	4,254	—	1,290	—	2,644	—	1,342	71	9,530	—	—
1919.....	—	4,254	18	1,308	—	2,644	—	1,342	18	9,548	—	—
[9] 1920.....	—	4,254	17	1,325	—	2,644	—	1,342	17	9,565	—	—
1921.....	—	4,254	39	1,364	—	2,644	—	1,342	39	9,604	—	—
1922.....	—	4,254	—	1,364	—	2,644	—	1,342	—	9,604	1,331	1,331
1923.....	88	4,342	14	1,378	17	2,661	—	1,342	119	9,723	—	1,331
1924.....	178	4,520	—	1,378	132	2,793	78	1,420	388	10,111	21	1,331
1925.....	—	4,520	—	1,378	15	2,808	—	1,420	15	10,126	—	1,352

[1] Includes Sterkstroom–Indwe Section, taken over by Government.
[2] Includes Bamboo Junction–Cape Collieries Section, taken over by Government.
[3] Includes Mossel Bay–George Section, worked by New Cape Central Railway Company.
[4] Includes Maitland–Ottery Section, taken over by Government.
[5] Includes Modderpoort–Ladybrand and Rayton–Cullinan Sections, taken over by Government.
[6] Mileage at Constitution of the Union.
[7] Includes Grahamstown–Port Alfred Section, taken over by Government.
[8] Includes 109 miles of line completed for and by Defence Department.
[9] Includes Vryheid East–Hlobane section taken over by Government.

3. Mileage of Government and Private Railways.—The subjoined table gives particulars of Government and private railway lines in the several Provinces, showing the total mileage according to gauge at the latest available date.

GOVERNMENT AND PRIVATE RAILWAY LINES IN EACH PROVINCE: MILEAGE AND GAUGE, 31st MARCH, 1924.

Province.	Government Lines. Gauge.			Private Lines. Gauge.				All Lines. Gauge.			
	3′ 6″.	2′.	Total.	3′ 6″.	2′ 6″.	2′.	Total.	3′ 6″.	2′ 6″.	2′.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Cape of Good Hope.....	4,054	288	4,342	325	108	21	454	4,379	108	309	4,796
Natal.....	1,132	246	1,378	76	—	8	84	1,208	—	254	1,462
Transvaal....	2,668	—	2,668	—	—	—	—	2,668	—	—	2,668
Orange Free State.....	1,342	—	1,342	4	—	—	4	1,346	—	—	1,346
South West Africa.....	968	363	1,331	—	—	74	74	968	—	437	1,405
UNION...	10,164	897	11,061	405	108	103	616	10,569	108	1,000	11,677

Under the powers conferred by Act No. 37 of 1925, the Government, as from the 1st August, 1925, acquired the New Cape Central Railway, a private company owning 205 miles of railway line operating between Worcester and Mossel Bay in the Cape Province.

4. **Main and Branch Railways.**—The following table shows the total mileage of Government main and branch lines in each of the Provinces, including South West Africa, classified according to gauge, at the latest available date :—

GOVERNMENT RAILWAY LINES: MILEAGE AND GAUGE OF MAIN AND BRANCH LINES, 31st MARCH, 1924.

PROVINCE.	MAIN LINES. Gauge.			BRANCH LINES. Gauge.			TOTAL MAIN AND BRANCH LINES. Gauge.		
	3′ 6″.	2′.	Total.	3′ 6″.	2′.	Total.	3′ 6″.	2′.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Cape of Good Hope..	1,935	—	1,935	2,119	288	2,407	4,054	288	4,342
Natal.....	451	—	451	681	246	927	1,132	246	1,378
Transvaal.....	965	—	965	1,703	—	1,703	2,668	—	2,668
Orange Free State....	539	—	539	803	—	803	1,342	—	1,342
South-West Africa....	770	—	770	198	363	561	968	363	1,331
UNION.....	4,660	—	4,660	5,504	897	6,401	10,164	897	11,061

5. **Mileage according to Area and Population.**—The subjoined table gives particulars as to the total mileages in the Union of open lines of railway, owned by the Government or privately owned, during a period of years, and for the financial year 1923–24 in respect of each Province, with the number of miles of line to each 100 square miles of territory, and to the European, coloured, and total population. The figures relating to the population have been based upon the returns for the Census of 1921.

MILEAGE OF OPEN LINES IN THE UNION FROM 1910 TO 1922-23, AND IN EACH PROVINCE FOR 1923-24, IN RELATION TO THE AREA AND POPULATION.

Year and Area.	Mileages.					Number of Miles of Line per 100 Square Miles of Territory.	Number of Miles of Line per 10,000 Inhabitants.		
	Government Lines.	Private Lines.	Total.	Proportion to Total Mileage.	Increase over Previous Years.		European Descent.	Other.	Total.
UNION—1910.....	6,991	601	7,592	—	—	1·60	60·14	16·69	13·06
1911.....	7,498	601	8,099	—	507	1·71	63·40	17·23	13·55
1912.....	7,800	601	8,401	—	302	1·77	65·76	17·87	14·05
,, 1913.....	8,232	558	8,790	—	389	1·86	66·21	17·99	14·14
,, 1914.....	8,464	558	9,022	—	232	1·91	66·58	18·07	14·22
,, 1915.....	9,010	558	9,568	—	546	2·02	69·23	18·81	14·79
,, 1916.....	9,407	559	9,966	—	398	2·11	70·65	19·19	15·10
,, 1917–18..	9,502	559	10,061	—	95	2·13	69·17	18·18	14·38
,, 1918–19..	9,548	559	10,107	—	48	2·13	68·33	17·84	14·15
,, 1919–20..	9,548	559	10,107	—	—	2·13	67·20	17·42	13·83
,, 1920–21..	9,565	542	10,107	—	—	2·13	66·10	17·01	13·53
,, 1921–22..	9,604	549	10,153	—	46	2·15	65·48	18·45	14·39
Union and S.W.A. 1922–23.....	10,935	623	11,558	—	1,405	1·45	72·28	19·91	15·61
1923–24.									
Cape of Good Hope	4,342	454	4,796	41·07	88	1·73	70·52	21·70	16·60
Natal.....	1,378	84	1,462	12·52	13	4·15	97·02	10·76	9·68
Transvaal.....	2,668	—	2,668	22·85	18	2·42	45·74	16·25	11·99
Orange Free State.	1,342	4	1,346	11·53	—	2·71	68·54	28·54	20·15
South West Africa	1,331	74	1,405	12·03	—	0·44	723·03	67·45	61·69
UNION AND SOUTH WEST AFRICA.....	11,061	616	11,677	100·00	119	1·47	71·64	19·82	15·35

South West African mileages are included as from the year 1922–23.

§ 4. Administration of Government Railways.

1. **Administration of Union Government Railways.**—The whole of the railways (and harbours—see Chapter XIX) in the Union are, with few exceptions, the property of the Government, and since the constitution of the Union have been administered under the provisions of the *South Africa Act*, 1909.* This provides *inter alia* that—

> subject to the authority of the Governor-General-in-Council the control and management of the railways, ports and harbours of the Union shall be exercised through a Board consisting of not more than three Commissioners, who shall be appointed by the Governor-General-in-Council, and a Minister of State, who shall be chairman. Each Commissioner shall hold office for a period of five years, but may be reappointed.

A further Act to interpret the provisions of the above-mentioned law relating to the Railway Board and to define the functions of that Board was passed in the year 1916.

The pertinent provisions of this later Act are as follows:—

> The management and working of the Railways and Harbours shall, subject to the control of the Minister, be carried out by the General Manager, who shall be governed by such regulations as the Minister may from time to time frame after consultation with the Board.

The executive head of the Department is the General Manager of Railways and Harbours, with headquarters at Johannesburg. In him is vested the entire management and control as set out in the foregoing extract from the Act of 1916. Four Assistant General Managers, each controlling his respective system, the Chief Civil Engineer, and Chief Mechanical Engineer are responsible to the General Manager.

In terms of Act No. 20 of 1922, the railways and harbours in the territory of South-West Africa became an integral part of the railways and harbours of the Union, and are controlled by a Divisional Superintendent stationed at Windhoek, who is directly responsible to the General Manager.

The headquarters of each of the four systems are situated at Cape Town (System A), Bloemfontein (System B), Johannesburg (System C), and Durban (System D). Under the three Assistant General Managers stationed at Cape Town, Bloemfontein, and Johannesburg, respectively, and directly responsible to them, are Divisional Superintendents. These officers control one of the Divisions in each of the systems A, B, and C. There are altogether nine of such Divisions—two in System "A," three in System "B," two in System "C," one in System "D," and one in South West Africa, controlled from Cape Town, Kimberley, Port Elizabeth, East London, Bloemfontein, Durban, Johannesburg, Pretoria, and Windhoek. In the case of the Divisions controlled from Cape Town, Bloemfontein, Johannesburg, and Durban, where Assistant General Managers are stationed, the office of Divisional Superintendent is dispensed with, and the work of the Division, in addition to the work of the Assistant General Manager, is carried out under that officer. Under each Divisional Superintendent there are Superintendents and Assistant Superintendents (Technical, Commercial, and Operating), by whom the staff operating the railways are immediately controlled.

2. **Principles of Railway Administration.**—The principles upon which the Railways and Harbours) of the Union are administered are clearly defined in the following extract rom the *South Africa Act*:—

> The railways, ports and harbours of the Union shall be administered on business principles, due regard being had to agricultural and industrial development within the Union and promotion, by means of cheap transport, of the settlement of an agricultural and industrial population in the inland portions of all provinces of the Union;

and the following further extract as to the financing of the railways indicates the principle on which the rates leviable for the conveyance of traffic are governed:—

> So far as may be the total earnings shall not be more than are sufficient to meet the necessary outlays for working, maintenance, betterment, depreciation and the payment of interest due on capital, not being capital contributed out of railway or harbour revenue.

3. **Railway and Harbour Fund.**—In the *South Africa Act* provision is made for the establishment of a Railway and Harbour Fund into which all revenues raised or received from the administration of the railways and harbours are paid and from which are withdrawn all moneys necessary to meet the expenditure of the Railway and Harbour Department, but only such expenditure as has received the approval of Parliament. Withdrawals

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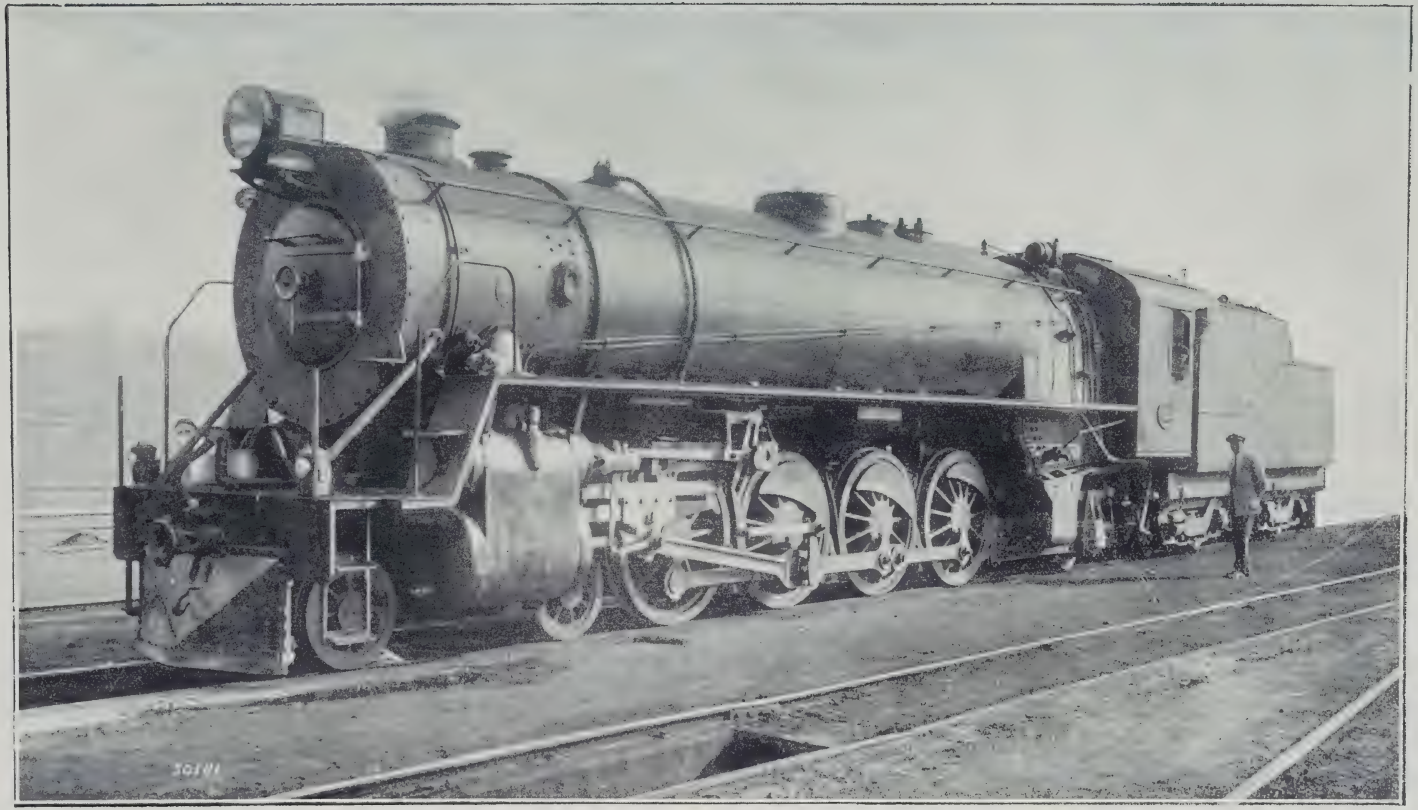
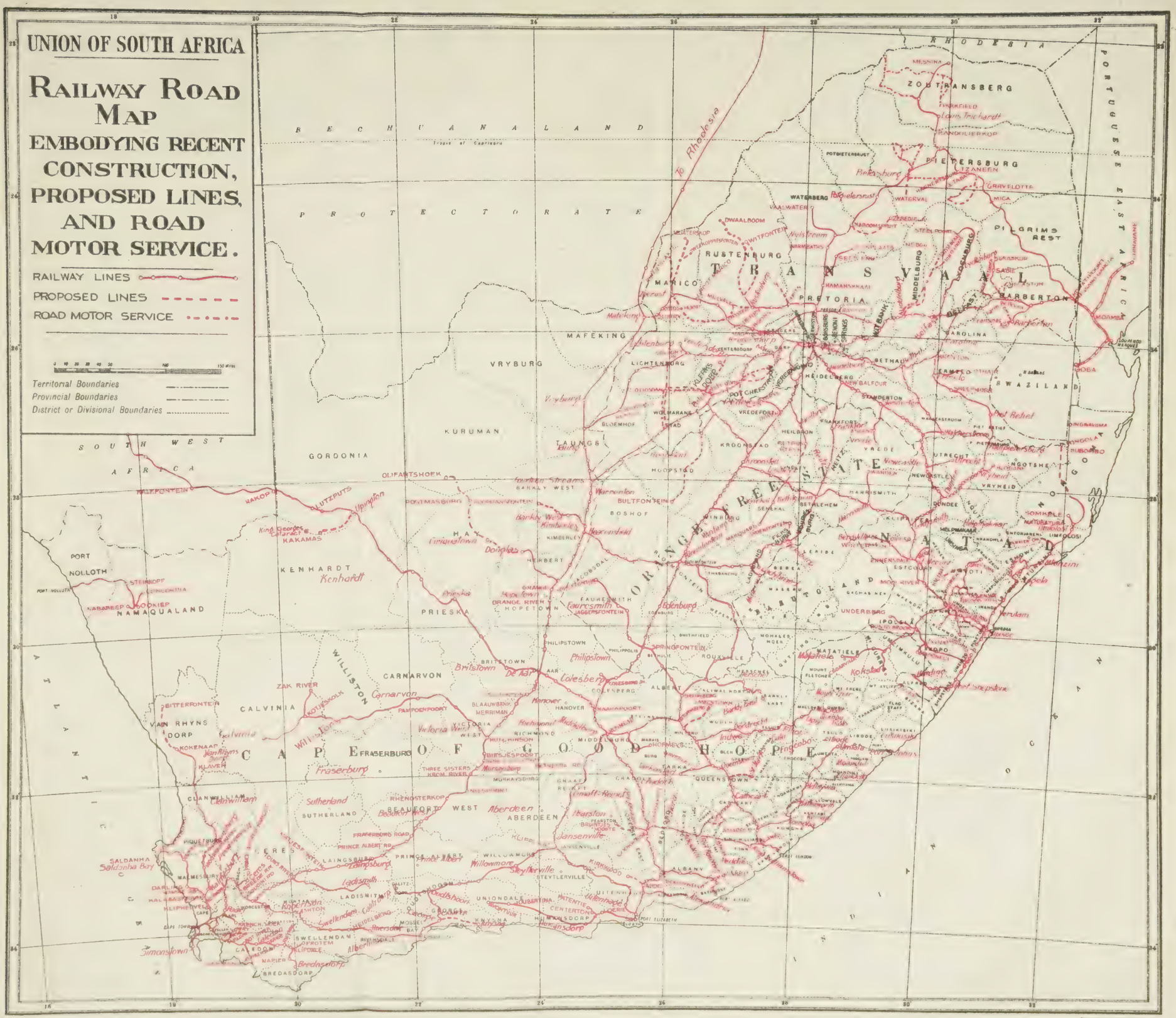
* For particulars of the administration of the South African railway system prior to 1910, reference should be made to the sixth and earlier issues of this *Year Book*.



"MOUNTAIN" TYPE ENGINE.

Copies in the Geological Survey Office.

Note photographed at the Government Printing Works, Pretoria.


UNION OF SOUTH AFRICA
RAILWAY ROAD MAP
EMBODYING RECENT CONSTRUCTION, PROPOSED LINES, AND ROAD MOTOR SERVICE.
RAILWAY LINES
PROPOSED LINES
ROAD MOTOR SERVICE
Territorial Boundaries
Provincial Boundaries
District or Divisional Boundaries
BECHUANALAND
PROTECTORATE
SOUTH WEST AFRICA
RHODESIA
PORTUGUESE EAST AFRICA
To Rhodesia
TRANSVAAL
ORANGE FREE STATE
NATAL
CAPE OF GOOD HOPE
BASUTOLAND
SWAZILAND
PRETORIA
JOHANNESBURG
PIETERSBURG
ZOUTPANSBERG
PILGRIMS REST
BARBERTON
RUSTENBURG
MAFEKING
VRYBURG
KURUMAN
GORDONIA
KENHARDT
PRIESKA
CARNARVON
CALVINIA
NAMAQUALAND
PORT NOLLOTH
VAN RHYNS DORP
FRASERBURG
BEAUFORT WEST
SUTHERLAND
ABERDEEN
CRADOCK
QUEENSTOWN
ALBANY
KIMBERLEY
BLOEMFONTEIN
LADYSMITH
DURBAN
PIETERMARITZBURG
NEWCASTLE
VRYHEID
UTRECHT
WOLMARANSTAD
POTCHEFSTROOM
VEREENIGING
HEIDELBERG
STANDERTON
WITBANK
MIDDELBURG
LYDENBURG
WATERBERG
PIETERSBURG
ZOUTPANSBERG
LOUIS TRICHARDT
SPRINGBOK
KAKAMAS
UPINGTON
DE AAR
BRITSTOWN
PHILIPSTOWN
HOPETOWN
ORANGE RIVER
PRINCE ALBERT
LAINGSBURG
LADISMITH
WILLOWMORE
STEYTLERVILLE
JANSENVILLE
KLIPPLAAT
GRAAFF-REINET
MIDDELBURG
COLESBERG
NAUPOORT
HANOVER
PHILIPPOLIS
SPRINGFONTEIN
ROUXVILLE
SMITHFIELD
WEPENER
FERRELSMITH
JAGERSFONTEIN
EDENBURG
HERBERT
GRIQUASTOWN
DOUGLAS
BARKLY WEST
KIMBERLEY
WARRENTON
BULTFONTEIN
BOSHOF
HOOPSTAD
TAUNGS
BLOEMHOF
LICHTENBURG
MARICO
ZEERUST
MAFEKING
VRYBURG
OLIFANTSHOEK
KAKAMAS
UPINGTON
POSTMASBURG
KENHARDT
PRIESKA
CARNARVON
CALVINIA
VAN RHYNS DORP
FRASERBURG
BEAUFORT WEST
SUTHERLAND
ABERDEEN
CRADOCK
QUEENSTOWN
ALBANY
KIMBERLEY
BLOEMFONTEIN
LADYSMITH
DURBAN
PIETERMARITZBURG
NEWCASTLE
VRYHEID
UTRECHT
WOLMARANSTAD
POTCHEFSTROOM
VEREENIGING
HEIDELBERG
STANDERTON
WITBANK
MIDDELBURG
LYDENBURG
WATERBERG
PIETERSBURG
ZOUTPANSBERG
LOUIS TRICHARDT
SPRINGBOK
PORT ELIZABETH
EAST LONDON
UITENHAGE
CRADOCK
GRAAFF-REINET

from the fund may be made for unforeseen expenditure to the extent of £500,000 or such additional sum as is represented by the excess of the actual revenue over the estimated revenue. Such expenditure, however, must be reported as soon as Parliament meets. All profits earned remain at the credit of the fund and are not paid to the Treasury as was the practice prior to the constitution of the Union. Expenditure on Capital Account is made from moneys received from the Treasury out of Loan Funds. Unexpended balances are returned to the Treasury. The Administration has no liability in respect of the cost of raising or discount expenses in connection with the flotation of loans. Such expenses are wholly defrayed by the Treasury, jointly with expenses for meeting the requirements for Public Works and other purposes served by loans.

4. **Staff.**—The following table gives details as to the staff employed on the Government Railways at the 31st March, 1918, and succeeding years :—

GOVERNMENT RAILWAYS—PARTICULARS OF STAFF EMPLOYED AT 31st MARCH 1918 TO 1925.

Year.	Regular Staff.				Casual Staff.		Grand Total.
	European.			Coloured.	European.	Coloured.	
	Salaried.	Other.	Total.				
*1917–18.....	7,305	26,938	34,243	32,544	128	3,302	70,217
*1918–19.....	7,916	27,367	35,283	34,962	130	2,953	73,328
*1919–20.....	8,501	31,138	39,639	38,189	121	3,013	80,962
1920–21.....	8,752	32,599	41,351	40,802	104	3,569	85,826
1921–22.....	8,147	28,111	36,258	29,921	†689	1,879	68,747
1922–23.....	7,915	27,196	35,111	35,307	†1,349	3,966	75,733
1923–24.....	7,936	29,521	37,457	40,631	188	3,450	81,726
1924–25.....	8,201	36,774	44,975	39,335	401	2,560	87,271

* These figures do not include the staff in South West Africa.
† These figures include labourers employed under Unemployment Relief Scheme.

5. **Principal Officers of the Railway Administration.**—The following are the principal officers of the Railways and Harbours Administration :—

Railways and Harbours Board...	Hon. C. W. Malan (Chairman), Albert Kuit, Peter Whiteside, and C. T. M. Wilcocks (Railway Commissioners).
General Manager.....	Sir W. W. Hoy, K.C.B., M.Inst.T.
Assistant General Managers.....	R. B. Gettliffe, M.Inst.T., J. R. More, M. Inst.C.E., P. E. Potter, M.Inst.T. (Actg.), R. R. Parrott, D.S.O., M.Inst.T.
Chief Civil Engineer.....	R. C. Wallace, M.I.C.E., M.Inst.T.
Chief Mechanical Engineer.....	Colonel F. R. Collins, V.D., D.S.O., M.Inst.C.E., M.Inst.T.
Chief Electrical Engineer.....	T. P. Pask, M.Inst.E.E.
Chief Accountant.....	G. A. Reid.
Chief Railway Storekeeper.....	H. J. Lyddon.
Catering Manager.....	A. H. Simmons.
Manager, Publicity Department...	A. H. Tatlow.

6. **Expenditure on Salaries, Wages, and Pensions.**—The following tables show (i) the expenditure of the Railways Administration on salaries and wages from 1910–11, under various headings, and (ii) the amounts paid in pensions each year from 1911 :—

(i) SOUTH AFRICAN RAILWAYS—TOTAL AMOUNT EXPENDED ON SALARIES AND WAGES, 1917–18 TO 1923–24.

Heading.	Average 1910-11 to 1913–14.	1917–18.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£	£	£
General Administration..	175,411	171,229	183,360	239,348	295,478	297,446	285,911	273,406
Permanent Way	758,454	1,020,869	1,097,912	1,347,763	1,658,353	1,545,627	1,434,050	1,359,068
Rolling Stock..	747,466	989,679	1,060,969	1,387,858	1,732,842	1,718,896	1,328,112	1,395,686
Running Expenses.....	1,131,021	1,491,676	1,516,924	2,070,639	2,695,681	2,363,798	2,221,376	2,399,819
Traffic Expenses	1,322,786	1,937,845	2,120,027	2,991,352	3,785,665	3,469,856	3,190,645	3,252,080
†Cartage Service	41,918	97,353	102,713	125,880	143,909	163,979	138,351	129,416
Renewing and Strengthening Permanent Way.....	‡41,148	50,177	51,112	71,388	103,489	59,863	58,019	—
Catering.....	89,516	109,981	125,161	186,385	259,664	214,824	181,871	178,398
Bookstalls, Advertising and Automatic Machines....	9,435	15,010	18,326	22,629	28,961	27,749	26,427	27,483
Bedding and Equipment on Trains.....	7,863	12,486	14,236	18,811	37,821	26,604	22,637	22,542
†Road Motor Services.....	—	1,099	1,384	2,520	4,229	6,789	5,197	5,671
Grain Elevators	—	—	—	—	—	—	—	9,127
Men on Active Service.....	—	243,103	233,228	53,243	1,754	—	—	—
Special War Bonus and Cost of Living Allowance....	—	503,501	1,306,758	1,349,369	2,714,017	1,130,705	—	13,330
TOTAL....£	4,325,018	6,644,008	7,832,110	9,867,185	13,461,863	11,026,136	8,892,596	9,066,026

* A proportion of the expenditure under this heading relates to harbours and steamships under the control of the Administration, but in the nature of the case it has not been possible to separate out such expenditure from the total, the bulk of which represents expenditure incurred in connection with the railways.

† Official estimate. Expenditure details not available.

‡ Year 1913–14 only.

(ii) SOUTH AFRICAN RAILWAYS—PARTICULARS OF PENSIONS AT 30TH SEPTEMBER, '1911 TO 1924.

Year.	Chargeable to Railway Pension Vote.				Chargeable to Pension Funds.	Total.
	Superannuation.	Invalid.	Compensation.	Extra Statutory.		
	£	£	£	£	£	£
1911.....	6,503	4,342	46,423	1,472	33,499	92,230
1912.....	7,873	3,647	46,791	1,087	44,444	103,842
1913.....	7,570	2,960	51,916	1,172	51,381	114,999
1914.....	8,194	2,972	53,136	1,100	57,037	122,439
1915.....	7,775	2,866	55,698	1,231	64,042	131,612
1916.....	7,360	2,891	54,567	980	67,725	133,523
1917.....	7,880	2,834	55,408	1,863	74,307	142,292
1918.....	7,335	2,773	52,029	1,863	80,127	144,127
1919.....	7,809	2,749	48,671	1,758	90,773	151,760
1920.....	7,355	2,759	46,730	1,583	98,985	157,412
1921.....	8,602	2,648	45,269	1,570	125,971	184,060
1922.....	9,422	2,308	79,794	1,470	150,121	243,115
1923.....	7,980	2,248	90,076	1,417	170,023	271,744
1924.....	**8,136**	**1,912**	**89,734**	**1,292**	**187,614**	**288,688**

7. **South African Railways and Harbours Publicity Department.**—The Publicity Department of the South African Railways and Harbours is controlled by a Publicity Manager, with Headquarters at Johannesburg and Branch offices at Cape Town and Durban. The Department is also represented in London by an official, styled "Publicity Agent," who is attached to the staff of the High Commissioner for the Union of South Africa.

The functions of the Publicity Department differ somewhat from those of similar departments in other countries; in scope they are wider, and in many directions they are a distinct departure from the accepted practice of both British and American railways which usually limit their "publicity" to advertising the districts served by their particular lines.

The purely commercial activities of the Department include :—

(*a*) The control of all bookstalls and automatic vending machines on the stations of the Administration's lines throughout the Union.

(*b*) The control of public advertisements of every description upon the lines of the Administration, and in various publications, such as telephone directories, Post Office guides, railway time tables, and the *South African Railways and Harbours Magazine*.

Under what may be styled technical activities, the functions of the Department are more diverse, and include :—

(*a*) A large photographic section, where photos, enlargements, lantern slides, and other pictorial media are prepared for propaganda purposes.

(*b*) A translating and press-cutting section.

(*c*) A section responsible for placing the numerous advertisements of the Administration in the local and overseas Press.

(*d*) A journalistic section.

The work of the last-named section is extremely varied in character, and embraces the preparation of articles for the Press, and the compilation, both for the Administration and for municipalities, of brochures, designed to attract tourists and holiday makers to specific resorts. But its most important function is in connexion with the Government's organization for disseminating overseas propaganda relative to South Africa. This organization has for its object the attraction to South Africa of persons of capital to assist in the development of the agricultural and industrial resources of the country. As an accessory to this propaganda, the attraction of tourists from overseas also plays a considerable part. The methods in vogue are both novel and original, and aim at a continuous and varied presentation of facts, so marshalled as to compel and sustain attention.

§ 5. Engines and Rolling Stock.

1. **Engines in Service.**—The following table gives the number of 3 ft. 6 in. gauge engines in service at the 31st March, 1924, with comparative figures from the year 1911. In addition to the engines referred to in the table, which are 3 ft. 6 in. gauge, there were in service on the 31st March, 1924, sixty-five engines (including thirteen engines in service in South West Africa) of 2 ft. gauge :—

NUMBER OF 3 ft. 6 in. GAUGE RAILWAY ENGINES IN SERVICE AT END OF EACH YEAR, 1911 TO 1916, AND AT 31st MARCH, 1917 TO 1924.

Tractive Force, lb. (75 per cent. of Boiler Pressure.)	Number of Engines.	Total Tractive Force.	Average Tractive Force.	Average Weight.
		lb.	lb.	Tons (2,000lb.).
TOTAL, 31ST DECEMBER, 1911.....	1,393	28,798,144	20,673	52·16
" " 1912.....	1,426	30,093,372	21,103	52·22
" " 1913.....	1,428	30,881,676	21,626	54·26
" " 1914.....	1,486	33,081,660	22,262	58·32
" " 1915.....	1,549	36,219,692	23,382	59·61
" " 1916.....	1,508	35,901,642	23,807	60·77
" 31ST MARCH, 1917.....	1,507	35,887,792	23,814	60·79
" " 1918.....	1,523	36,517,512	23,977	61·74
" " 1919.....	1,556	37,865,507	24,335	62·26
" " 1920.....	1,646	40,719,125	24,738	64·22
" " 1921.....	1,708	43,137,949	25,257	65·98
" " 1922.....	1,786	45,836,300	25,664	67·61
" " 1923.....	1,790	46,032,253	25,716	67·77
Under 10,000 and not known.....	54	465,598	8,622	31·16
10,001 to 14,000.....	45	555,419	12,343	38·20
14,001 " 18,000.....	237	3,912,640	16,509	50·23
18,001 " 22,000.....	343	6,519,068	18,994	48·58
22,001 " 26,000.....	294	6,867,326	23,358	61·31
26,001 " 30,000.....	167	4,777,624	28,609	74·83
30,001 " 34,000.....	325	10,546,062	32,449	85·45
34,001 " 38,000.....	222	8,132,415	36,633	91·96
*38,001 " 42,000.....	61	2,011,460	32,975	96·18
*42,001 " 46,000.....	27	1,226,610	45,430	97·60
46,001 and upwards.....	21	1,012,345	48,207	107·60
†TOTAL, 31ST MARCH, 1924.....	1,796	46,022,501	25.625	67·62

* The tractive force of the Mallet engines included is calculated at 50 per cent. of boiler pressure, and that of the 12A class and G.A. (Garratt) engines at 75 per cent.

† Including 14 engines in service in South West Africa.

2. **Wagon, Coaching, and Merchandise Stock.**—The following table (i) gives the position in regard to railway wagon stock as at the 31st March, 1924; table (ii) gives similar particulars in respect of coaching stock; and table (iii) gives a classification of 3 ft. 6 in. gauge merchandise stock, according to carrying capacity, as at the 31st March, 1924, with comparative figures from the year 1910.

(i) RAILWAY WAGON STOCK, 31st MARCH, 1924.

Type.	Description.	Stock, 31st March, 1923.	1st April, 1923, to 31st March, 1924.		Stock, 31st March, 1924.	Carrying Capacity. lb.	Placed in Service.	Condition at 31st Mar., 1924.	
			Additions.	Reductions.				In Working Order.	Under and Waiting Repairs.
	3 FT. 6 IN. GAUGE. 8-*Wheeled.*								
A	Hoppers	659	—	1	658	62,000–100,000	1904–1921		
B	Bogies, 60,000 lb. and over	5,639	—	5	5,634	64,000–100,800	1901–1922		
C	Bogies under 60,000 lb.	1,599	6	3	1,602	22,400– 56,000	1882–1909		
D	Drop-sided	2,866	25	7	2,884	22,400– 68,000	1882–1921		
G	Cattle	511	2	21	492	22,400– 54,000	1882–1922		
L	Refrigerator and Insulated	241	—	—	241	30,000– 45,000	1893–1923	11,151	593
O	Fruit and Perishables	55	—	—	55	25,000– 45,000	1882–1914		
Q	Explosives	29	—	—	29	35,000	1895		
S	Flat	32	—	4	28	44,800–160,000	1897–1915		
T	Horseboxes	—	—	—	—	—	—		
U	Well Wagons	18	—	—	18	45,000–112,000	1898–1914		
F	Covered Goods Wagons	3	100	—	103	80,000	1922–1924		
		11,652	133	41	11,744	—	—	11,151	593
	8-*Wheeled Vans and Miscellaneous.*								
	Bunkering	2	—	—	2	—	1889–1893		
V	Mail and Luggage Vans	380	58	5	433	—	1902–1924		
	Cabooses	36	2	—	38	—	1882–1921		
	Crane Tenders	21	—	1	20	—	1890–1920		
	Breakdown Vans	42	7	1	48	—	1903–1922	732	31
X	Tank Wagons	146	14	4	156	—	1902–1920		
XP	Petrol Tank Wagons	—	6	—	6	—	1923		
Y	Ballast Wagons	53	—	2	51	—	1897–1916		
Z	Special Type Wagons	—	9	—	9	—	1923–1924		
		12,332	229	54	12,507	—	—	11,883	624
	6-*Wheeled Wagons and Vans, etc.*								
	Box Wagons (Durban Harbour)	3	—	—	3	—	—		
E	Open Goods Wagons	180	—	6	174	26,880	1882–1911		
R	Flat Wagons	1	—	—	1	—	1902		
X	Tank Wagons	11	—	—	11	—	1887–1917	187	15
	Breakdown Vans	1	—	—	1	—	1892		
S	Machinery Trucks, etc.	11	—	—	11	—	1902–1920		
	Caboose	1	—	—	1	—	1892		
		12,540	229	60	12,709	—	—	12,070	639
	4-*Wheeled.*								
E	Open Goods	4,625	11	82	4,554	12,000–30,000	1878–1920		
F	Covered Goods	604	1	13	592	12,000–32,000	1882–1920		
H	Cattle, 13-ft. wheelbase	1,005	—	1	1,004	22,400–44,000	1897–1913		
I	Cattle, under 13-ft. wheelbase	4,752	292	10	5,034	15,000–42,000	1897–1923		
J	Sheep Wagons	3,722	—	13	3,709	16,000–32,000	1882–1913		
JD	Convertible Double-Decked Sheep Wagons	1	—	—	1	—	1922		
K	Sheep Wagons (drop-sided)	2,361	68	—	2,429	22,400–32,000	1897–1921	17,482	763
M	Refrigerator and Insulated	143	—	1	142	15,000–30,000	1882–1916		
N	Meat Wagons	64	—	2	62	15,000–30,000	1882–1912		
O	Fruit and Perishables	464	2	1	465	15,000–30,000	1882–1911		
Q	Explosives	187	—	1	186	15,000–30,000	1882–1912		
R	Flat Wagons	36	—	2	34	12,000–26,880	1882–1901		
T	Horseboxes	4	—	1	3	12,000–30,000	1882–1910		
QZ	Bisulphate	24	6	—	30	22,240–30,000	1897–1903		
		30,532	609	187	30,954	—	—	29,552	1,402

(i) RAILWAY WAGON STOCK, 31ST MARCH, 1924—*continued.*

Type.	Description.	Stock, 31st March, 1923.	1st April, 1923, to 31st Mar., 1924. Additions.	1st April, 1923, to 31st Mar., 1924. Reductions.	Stock, 31st March, 1924.	Carrying Capacity. lb.	Placed in Service.	Condition at 31st Mar., 1924. In Working Order.	Condition at 31st Mar., 1924. Under and Waiting Repairs.
	4-Wheeled Vans and Miscellaneous.								
	Short Wagons (ex-S.-W.A.), for Harbour Purposes..	96	—	96	—	—	—		
W	Goods Brake Vans.	427	—	11	416	—	1878–1919		
	Pillar Brake Vans..	16	—	—	16	—	1882		
	Cabooses.....	53	2	1	54	—	1878–1903		
Y	Ballast Wagons....	218	—	20	198	—	1897–1898		
X	Tank Wagons.....	270	—	6	264	—	1882–1914		
	Pump Wagons.....	2	—	—	2	—	1896–1898		
	Crane Tenders.....	40	1	7	34	—	1882–1902	1,066	107
	Breakdown Vans..	7	1	2	6	—	1882–1897		
	Ash and Refuse Wagons.....	120	1	6	115	—	1879–1901		
	Bunkering.....	31	—	—	21	—	—		
	Timber Trollies....	3	—	—	3	—	—		
	Well Wagon.....	1	—	—	1	—	—		
Z	Special Type.....	—	2	—	2	—	1923		
	S.W.A. Stock.....	31	—	—	31	—	—		
		31,347	616	336	32,127	—	—	30,618	1,509
	2-FT. GAUGE.								
	Various Goods Stock, excluding Cranes.	606	50	4	652	—	1902–1923		
	Do. S.W.A...	261	—	—	261	—	—		
	3-FT. 6-IN. GAUGE.								
	Cranes.....	113	2	4	111	—	1882–1922	991	38
	Do. S.W.A.	2	—	—	2	—	—		
	2-FT. GAUGE.								
	Cranes.....	3	—	—	3	—	1902–1904		
	GRAND TOTAL....	32,832	668	344	33,156	—	—	31,609	1,547

(ii) **RAILWAY COACHING STOCK, 31st MARCH, 1924.**

Type.	Description.	Stock, 31st March, 1923.	1st April, 1923, to 31st March, 1924. Additions.	1st April, 1923, to 31st March, 1924. Reductions.	Stock, 31st March, 1924.	Average Seating Capacity.	Placed in Service.	Condition, 31st Mar., 1924. In Working Order.	Condition, 31st Mar., 1924. Under and Waiting Repairs.
	3 FT. 6 IN. GAUGE.	No.	No.	No.	No.	No.		No.	No.
	8-Wheeled.								
M.L., C	1st Class.....	343	6	—	349	28	1887–1923		
D	1st and 2nd Class.....	358	7	3	362	32	1891–1923		
E	2nd Class.....	278	20	7	291	40	1891–1924		
H & J	3rd Class.....	297	1	5	293	66	1882–1921		
F	1st, 2nd, and 3rd Class	34	3	—	37	64	1898–1920	1,169	188
X	2nd and 3rd Class....	14	1	9	6	42	1915–1920		
G	1st, 2nd, and Van; 1st and Van; and 1st, 2nd, 3rd, and Van..	19	—	—	19	13	1898–1913		
		1,343	38	24	1,357	—	—	1,169	188

(ii) RAILWAY COACHING STOCK, 31ST MARCH, 1924.—*continued.*

Type.	Description.	Stock, 31st March, 1923.	1st April, 1923, to 31st March, 1924.		Stock, 31st March, 1924.	Carrying Capacity.	Placed in Service.	Condition at 31st Mar., 1924	
			Additions.	Reductions.				In Working Order.	Under and Waiting Repairs.
Sub., L	1st Class	271	—	—	271	60	1882–1921		
N	1st Class and Van	72	1	—	73	38	1882–1921		
M	1st and 2nd Class	101	—	—	101	45	1882–1921		
U	1st, 2nd, and Van	53	—	—	53	36	1882–1922		
Y	1st, 3rd and Van	1	—	—	1	29	—		
O	2nd Class	161	—	—	161	60	1882–1922		
Q	1st, 2nd, and 3rd Class	53	—	1	52	56	1882–1920		
P	2nd and Van	17	—	1	16	40	1882	971	143
W	2nd, 3rd, and Van	4	1	—	5	35	1893–1920		
S	3rd Class	230	—	7	223	84	1882–1921		
R	2nd and 3rd Class	14	—	1	13	63	1890–1922		
V	1st, 2nd, and 3rd, and Van	41	—	1	40	40	1882–1920		
T	3rd and Van	91	4	—	95	48	1898–1921		
M & U	Rail Motor Coaches	10	5	—	15	56	1908–1924		
Mis., A	Dining-cars	85	—	7	78	24	1896–1921		
	Twin Dining-cars	—	4	—	4	45	1923		
	Reserved	43	1	1	43	—	1882–1920		
	Funeral, Workmen, Infectious Diseases, etc.	9	—	—	9	56	1882–1920		
	Pay Coaches	3	—	—	3	—	1882–1904	312	56
Vans, K	Luggage, Transhp., etc.	194	13	1	206	—	1882–1924		
	Postal and Mail	14	—	1	13	—	1890–1908		
B	Kitchen Staff and Baggage	7	—	—	7	—	1903–1913		
	Harbour Coaches	5	—	—	5	56	—		
		2,822	67	45	2,844	—	—	2,452	392
	3 FT. 6 IN. GAUGE.								
	4-Wheeled.								
	1st Class	8	—	—	8	16	1897		
	2nd Class	10	—	—	10	16	1897		
	3rd Class	11	—	—	11	30	1897		
	Reserved	80	—	3	77	—	1882–1907	99	11
	Luggage and Guards' Vans	4	—	—	4	—	1898		
	S.W.A. Coaching Stock	19	—	—	19	—	—	17	2
		2,954	67	48	2,973	—	—	2,568	405
	2-FT. GAUGE.								
	Cape	49	—	—	49	—	1902–1912		
	Natal	31	—	—	31	—	1907		
	C.S.A.R.	2	—	—	2	—	1907	100	14
	S.A.R.	14	3	—	17	—	1914–1921		
	S.W.A.	15	—	—	15	—	—		
	GRAND TOTAL	3,065	70	48	3,087*	—	—	2,668	419

* Excluding 34 coaching vehicles in service in South West Africa.

(iii) CLASSIFICATION OF 3 ft. 6 in. GAUGE MERCHANDISE STOCK,* ACCORDING TO CARRYING CAPACITY, AT END OF EACH YEAR, 1910 TO 1916, AND 31st MARCH, 1917 TO 1924.

Capacity. lb.	Number of Vehicles.	Aggregate Capacity (in tons of 2,000 lb.).	Average Capacity (in tons of 2,000 lb.).
TOTAL, 31ST DECEMBER, 1910	22,017	390,896	17·75
,, ,, 1911	22,180	406,944	18·35
,, ,, 1912	21,932	414,883	18·92
,, ,, 1913	22,950	446,259	19·44
,, ,, 1914	24,269	477,044	19·66
,, ,, 1915	25,607	526,067	20·54
,, ,, 1916	26,478	547,185	20·66
,, 31ST MARCH, 1917	26,609	549,955	20·66
,, ,, 1918	26,294	548,897	20·87
,, ,, 1919	26,236	548,215	20·89
,, ,, 1920	26,790	566,761	21·16
,, ,, 1921	28,884	615,873	21·32
,, ,, 1922	29,334†	631,386	21·52
,, ,, 1923	29,644†	637,914	21·52
10,001 to 20,000	2,785	24,497	8·80
20,001 to 30,000	12,058	157,354	13·05
30,001 to 40,000	3,329	63,878	19·19
40,001 to 50,000	2,535	58,324	23·01
50,001 to 60,000	2,769	77,908	28·14
60,001 to 70,000	1,449	50,707	34·99
70,001 to 80,000	3,521	139,997	39·76
80,001 and over	1,549	74,438	48·06
TOTAL, 31ST MARCH, 1924	29,995†	647,103	26·88

* Exclusive of miscellaneous stock, such as vans, cabooses, cranes and crane-tenders, breakdown vans, tank trucks, ballast and ash wagons.
† Including vehicles in service in South West Africa.

3. **Railway Workshops, Rolling Stock Built, etc.**—The following statement indicates the number of engines and other rolling stock built, erected, and repaired at the various railway workshops, which are situated at Salt River, Durban, Uitenhage, Pietermaritzburg, Bloemfontein, and Pretoria :—

OUTPUT OF NEW AND REPAIRED ROLLING STOCK—RAILWAY WORKSHOPS.

Year.	New Rolling Stock.		Repaired Rolling Stock.	
	Built.	Erected.	Heavy.	Light.
1915–16—Engines	—	24	788	342
Coaches	40	30	1,209	2,102
Goods Stock	123	1,006	13,428	8,810
1916–17—Engines	—	24	764	341
Coaches	30	30	1,140	2,186
Goods Stock	126	744	8,809	13,416
1917–18—Engines	—	32	657	361
Coaches	23	—	1,112	2,289
Goods Stock	5	26	8,043	14,483
1918–19—Engines	—	47	604	336
Coaches	20	—	1,106	1,916
Goods Stock	9	—	10,696	8,391
1919–20—Engines	—	112	667	312
Coaches	51	—	998	2,111
Goods Stock	52	613	11,262	8,427
1920–21—Engines	—	79	695	323
Coaches	19	133	957	2,330
Goods Stock	180	2,133	11,285	7,540
1921–22—Engines	—	86	699	228
Coaches	67	64	918	2,201
Goods Stock	79	526	11,490	5,340
1922–23—Engines	—	10	750	249
Coaches	50	3	1,099	2,200
Goods Stock	182	366	12,064	4,567
1923–24—Engines	—	—	780	269
Coaches	31	6	1,284	2,088
Wagons	362	156	12,763	4,766

§ 6. Traffic.

1. **Mileage Run and Passengers and Goods Carried.**—The subjoined table gives the average route mileage of open lines, the train mileage run, the number of passengers carried (journeys), and the tonnage of goods carried for a series of years :—

AVERAGE ROUTE MILEAGE OF OPEN RAILWAY LINES, TRAIN MILEAGE RUN, PASSENGERS CARRIED (JOURNEYS), AND TONNAGE OF GOODS CARRIED, 1918-19 TO 1923-24.

HEADS.	1918–19.*	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*
†Average Route Mileage of Open Lines (owned and leased) worked during year....Miles	9,529	9,542	9,559	9,559	10,987	11,066
Train Mileage.....Miles	31,092,210	33,574,608	35,973,779	32,653,066	33,026,174	38,153,690
Train and Engine Mileage..Miles	40,721,480	43,973,947	46,212,721	41,732,557	41,838,223	48,423,772
Passengers Carried(journeys), No	51,493,889	60,732,100	64,069,138	61,427,474	61,582,447	65,811,610
Tonnage of Goods and Minerals other than Coal (Revenue Earning).....Tons	6,551,840	7,083,853	7,485,986	7,108,554	7,690,140	9,404,954
Tonnage of Coal (Revenue Earning).....Tons	7,559,296	7,712,552	8,948,555	8,112,208	8,028,724	9,433,619
Gross Tonnage Revenue Earning Traffic.....Tons	14,111,136	14,796,405	16,434,541	15,220,762	15,718,864	18,838,573

* Year ended 31st March.
† Includes 50 miles leased from the Natal-Zululand Railway Company.

2. **Train and Engine Mileage.**—The following table gives the train and engine mileage run on Government lines from the year 1910 :—

TRAIN AND ENGINE MILEAGE RUN ON GOVERNMENT RAILWAY LINES, 1910 TO 1923-24.

Year.	Passenger Train Miles.	Mixed Train Miles.	Goods Train Miles.	Total Train Mileage.	Total Train and Engine Mileage.
1910.....	6,157,040	4,576,885	12,846,721	23,580,646	29,764,137
1911.....	6,642,010	4,907,627	13,972,076	25,521,713	32,804,298
1912.....	7,187,754	5,371,665	15,614,287	28,173,706	36,154,189
1913.....	7,777,643	5,439,502	17,142,788	30,359,933	38,933,085
1914.....	7,010,328	5,441,123	17,250,540	29,701,991	38,161,437
1915.....	6,657,712	5,237,654	17,924,810	29,820,176	37,018,919
1916.....	7,271,972	5,375,233	20,837,096	33,484,301	42,232,223
Jan.–Mar., 1917.	1,920,976	1,364,893	5,062,897	8,348,766	10,795,688
1917–18*.....	6,728,206	5,089,053	21,013,073	32,830,332	43,020,339
1918–19*.....	6,247,389	5,114,121	19,730,700	31,092,210	40,721,480
1919–20*.....	7,216,310	5,330,069	21,028,229	33,574,608	43,973,947
1920–21*.....	8,973,990	4,691,968	22,307,821	35,973,779	46,212,721
1921–22*.....	8,617,296	4,515,192	19,520,578	32,653,066	41,732,557
1922–23*.....	8,883,268	4,447,438	19,695,467	33,026,173	41,838,223
1923–24*.....	9,499,337	4,644,912	24,009,441	38,153,690	48,423,772

* Year ended 31st March.

3. **Speed of Trains.**—The speed of main line trains varies according to loads, grades, and other local conditions. Between Cape Town and Johannesburg and Durban and Johannesburg, the times for the journeys work out as follows :—

SPEED OF MAIN LINE TRAINS.

Section.	Miles.	Time in Hours.	Average Miles per Hour.
Cape Town–Johannesburg.....	956	30	32
Johannesburg–Cape Town.....	956	29½	32¼
Durban–Johannesburg.....	482	20¼	23¾
Johannesburg–Durban.....	482	21½	22¼

These averages include all stops at stations and depots en route, but the actual running speed on short sections where the conditions are favourable is frequently 35 to 40 miles per hour with ordinary main line trains, and 50 to 52 miles with Limited Expresses. Fast non-stop trains are run between Cape Town and Muizenberg and between Pretoria and Germiston. The speed of these trains averages 37 miles per hour for the whole journeys of 15½ miles and 36 miles respectively.

In July, 1925, four experimental main line engines—two "Mountain" and two "Pacific" type—built by the Baldwin Locomotive Company, were placed in traffic on the express passenger trains between Johannesburg and Cape Town. The use of these engines enabled the journey to Cape Town to be accelerated by 58 minutes, and in the reverse direction by 15 minutes.

Experience with this type of engine having proved satisfactory, further engines of a similar type were obtained and others are on order.

The results achieved have been satisfactory. The grease lubrication employed on these engines has effected economy; coal consumption has been less; additional service per engine day has been obtained; an increase of 15 per cent. in the load hauled, as compared with other "Mountain" type engines, has been secured; and the engines have established a world record for coal-burning locomotives on a 3 ft. 6 in. gauge by hauling a fast mail train between Cape Town and Johannesburg, a distance of 956 miles.

4. **Length of Journeys.**—Particulars in regard to the length of journeys between certain principal railway centres are contained in the subjoined table:—

LENGTH OF JOURNEYS BETWEEN PRINCIPAL CENTRES IN MILEAGE AND TIME.

Points between.		Mileage.	Hours.
Bloemfontein–	Beira	1,493	89¼
	Bulawayo	820	42½
	Cape Town	747	24
	Durban	503	22¾
	East London	402	22¼
	Johannesburg	263	10½
	Kimberley	105	3½
	Lourenco Marques	639	29¾
	Port Elizabeth	450	20
	Pretoria	290	11½
	Victoria Falls	1,100	64½
	Windhoek	1,131	60½
Cape Town–	Beira	2,035	112
	Bloemfontein	747	24⅓
	Bulawayo	1,362	64½
	Durban	1,250	47½
	East London	901	46½
	Johannesburg	956	30
	Kimberley	647	20¼
	Lourenco Marques	1,350	66
(Via De Aar)	Port Elizabeth	839	38¾
(Via Mossel Bay)	Port Elizabeth	673	41
	Pretoria	1,001	32
	Victoria Falls	1,642	86½
	Windhoek	1,383	70¾
Durban–	Beira	1,836	109¾
	Bloemfontein	503	25½
	Bulawayo	1,163	62½
	Cape Town	1,250	49½
	East London	906	57½
	Johannesburg	482	20½
	Kimberley	608	28½
	Lourenco Marques	859	44⅜
	Port Elizabeth	953	53¾
	Pretoria	510	22
	Victoria Falls	1,443	85½
	Windhoek	1,634	94¼
East London–	Beira	1,891	118¾
	Bloemfontein	402	22
	Bulawayo	1,218	71¾
	Cape Town	901	46
	Durban	906	49½
	Johannesburg	665	32½
	Kimberley	503	29
	Lourenco Marques	1,041	54
	Port Elizabeth	301	20½
	Pretoria	692	33¾
	Victoria Falls	1,498	94
	Windhoek	1,282	75⅞
Johannesburg–	Beira	1,354	83½
	Bloemfontein	263	11
	Bulawayo	681	36½
	Cape Town	956	29½
	Durban	482	21½
	East London	665	33½
	Kimberley	309	9
	Lourenco Marques	394	16
	Port Elizabeth	712	31½
	Pretoria	45	1½
	Victoria Falls	961	58½
	Windhoek	1,337	69¾
Kimberley–	Beira	1,388	82⅞
	Bloemfontein	105	3½
	Bulawayo	715	35⅔
	Cape Town	647	20½
	Durban	608	26½
	East London	547	33½
	Johannesburg	309	9½
	Lourenco Marques	703	49½
	Port Elizabeth	485	28⅔
	Pretoria	354	11½
	Victoria Falls	995	59
	Windhoek	1,029	57¾
Port Elizabeth–	Beira	1,873	116½
	Bloemfontein	450	23¼
	Bulawayo	1,200	69¼
(Via De Aar)	Cape Town	839	41½
(Via Mossel Bay)	Cape Town	673	43
	Durban	953	58
	East London	301	20½
	Johannesburg	712	34½
	Kimberley	485	28½
	Lourenco Marques	1,089	65¾
	Pretoria	740	35¾
	Victoria Falls	1,480	91½
	Windhoek	1,221	71
Pretoria–	Beira	1,400	86
	Bloemfontein	290	12½
	Bulawayo	727	39
	Cape Town	1,001	31½
	Durban	510	22½
	East London	692	34½
	Johannesburg	45	1½
	Kimberley	354	11¼
	Lourenco Marques	349	13½
	Port Elizabeth	740	32¼
	Victoria Falls	1,007	61½
	Windhoek	1,382	72

The longest continuous journey over the Union railways is from Klaver in the Cape Province to Somkele in Natal, the distance being 1,555 miles.

The railway to the north has now been extended about 575 kilometres beyond the Belgian Congo border at Sakania, and a continuous journey can be made from Cape Town to Bukama, a distance of about 2,500 miles.

5. **Road Motor Services.**—The South African Railways and Harbours Administration has had certain road motor services in operation for a number of years, and as a result of the experienced gained, several additional services have been introduced recently and others are under consideration.

The following road motor services are in operation, or authorized :—

Services by Passenger Vehicles and Light Goods Lorries—

Bot River–Hermanus.
Bellville–Durbanville.
Sea Point–Clifton (passengers).
Johannesburg–Rivonia.

Services by 1½ or 2 ton Pneumatic Tyred Vehicles.—Conveying passengers, parcels, mails, perishable produce, and light goods :—

Railway Station.	*Points Served.*
Pietersburg	Haenertsburg.
Pietersburg	Waldburg and Zoetdoorns.
Pietersburg	Waterval.
Waterpoort and Mopani	Bridgewater and Parkfield.
Zeerust and Koster	Brakfontein, Bokkraal, and Millvale.
Potchefstroom	Fochville and Hoogekraal.
Klerksdorp	Ventersdorp.
Klerksdorp and Maquassi	Ottosdal, Hartebeestfontein, and Wolmaransstad.
Joubertsdal (Rustenburg)	Noord Brabant.
Middelburg (Transvaal)	Delagersdrift, Roos Senekal, and Tonteldoos.
Leydsdorp Road	Selati Valley.
Barberton	De Kaap Valley.
Douglas	Griquatown, Postmasburg, and Olifantshoek.

The provision of these facilities has undoubtedly been justified in the development which has followed, and the experience already gained in the Pietersburg district indicates that the ordinary veld roads are capable, in most instances, of supporting road motor services where the vehicles used are of moderate weight, and preferably of the pneumatic tyred "speed truck" type. Consideration is being given to the extension of road transport facilities of this nature.

6. **Road-rail System of Transport.**—The greater portion of the railways in the Union connect the more densely populated and industrial areas with the coastal towns; in addition, many hundreds of miles of branch lines have been constructed to open up agricultural districts. But large tracts of sparsely populated country still remain without connection with the main lines of communication. The Railway Administration has had, under consideration, the introduction of an effective but cheap form of transport to accelerate the development of rural areas already opened up, particularly areas which, whilst requiring rail transport, are not sufficiently advanced to warrant the expense of a 3 ft. 6 in. gauge line. With this end in view, experiments have been made with the Stronach-Dutton "road-rail," which provides a compromise between road and rail transport. The motive power is furnished by a special form of road tractor, the rubber-tyred driving wheels of which run on specially prepared wheelways outside a light rail track, whilst the load is carried in trucks running on a 16-lb. or 20-lb. tram track of 2 ft. gauge, thus eliminating the friction factor. The gripping properties of the rubber tyres of the tractor upon the prepared wheel-paths permit of a tractive effort four times greater than that of a steel-tyred wheel running upon rails. Under such conditions, a 5-ton road tractor is able to haul a load of from 40 to 130 tons on rail, the gradients being the determining factor. The underlying principle of the road-rail is that by reason of its ability to make use of steep grades and to take sharp curves, the track can, in many cases, be laid along existing roads and over road-bridges, thus obviating the necessity for the provision of an expensive independent formation, with bridges, etc.

An experimental line constructed under the Stronach–Dutton system of "road-rail" traction was opened for public traffic between Naboomspruit Station (Pretoria–Pietersburg line) and Singlewood, 20½ miles, on 22nd September, 1924. The working results are being watched with a view to comparing this system of transport with light 20-lb. railway lines constructed in an elementary manner.

§ 7. Accidents.

1. **Return of Accidents.**—The subjoined table gives the total number of persons killed or injured on the railways during a series of years, specifying Europeans and others:—

RAILWAYS—PERSONS (EUROPEANS AND OTHERS) KILLED OR INJURED IN ACCIDENTS, 1919-20 TO 1923-24.

Heading.	1919–20.*			1920–21.*			1921–22.*			1922–23.*			1923–24.*		
	T.	E.	O.	T.	E.	O.	T.	E.	O.	T.	E.	O.	T.	E.	O.
PASSENGERS.															
Accidents to Trains, Rolling Stock, Permanent Way, etc.—															
Killed	6	5	1	14	—	14	4	2	2	—	—	—	8	4	4
Injured	26	16	10	63	14	49	20	9	11	1	—	1	47	26	21
Accidents from other Causes, including accidents due to their own want of care or misconduct—															
Killed	28	13	15	15	8	7	14	6	8	11	3	8	12	3	9
Injured	48	29	19	38	19	19	24	13	11	26	14	12	28	22	6
TOTAL—															
Killed	34	18	16	29	8	21	18	8	10	11	3	8	20	7	13
Injured	74	45	29	101	33	68	44	22	22	27	14	13	75	48	27
Number of Casualties from Accidents to Trains, Rolling Stock, etc., per million passengers—															
Killed	·1	—	—	·453	—	—	·293	—	—	·179	—	—	·333	—	—
Injured	·43	—	—	1·578	—	—	·716	—	—	·438	—	—	1·114	—	—
OTHER PERSONS.															
Whilst passing over Railway at Level Crossings—															
Killed	20	6	14	11	2	9	18	8	10	21	13	8	15	5	10
Injured	30	21	9	30	15	15	29	16	13	22	17	5	28	20	8
Trespassers—															
Killed	37	8	29	43	10	33	43	13	30	50	16	34	45	13	32
Injured	24	7	17	23	5	18	16	6	10	16	8	8	17	7	10
Suicides—															
Killed	10	8	2	4	2	2	10	4	6	2	2	—	8	6	2
Injured	1	—	1	1	1	—	—	—	—	—	—	—	—	—	—
Miscellaneous (not included above)—															
Killed	12	4	8	10	2	8	13	6	7	11	3	8	24	12	12
Injured	15	10	5	8	2	6	13	7	6	12	4	8	33	8	25
TOTAL—															
Killed	79	26	53	68	16	52	84	31	53	84	34	50	92	36	56
Injured	70	38	32	62	23	39	58	29	29	50	29	21	78	35	43
GRAND TOTAL—															
Killed	113	44	69	97	24	73	102	39	63	95	37	58	112	43	69
Injured	144	83	61	163	56	107	102	51	51	77	43	34	153	83	70

* Twelve months ended 31st March. T = Total; E = European; O = Other.

§ 8. Passenger Fares and Goods and Live Stock Rates.

1. **Tariff Policy.**—The tariff policy of the South African Railways is governed by Section 127 of the *South Africa Act*, which provides as follows :—

> The railways shall be administered on business principles, due regard being had to agricultural and industrial development within the Union, and promotion, by means of cheap transport, of the settlement of an agricultural and industrial population in the inland portions of all Provinces of the Union. So far as may be, the total earnings shall not be more than are sufficient to meet the necessary outlays for working, maintenance, betterment, depreciation, and the payment of interest due on capital, not being capital contributed out of railway or harbour revenue.

Prior to the establishment of the Union, the Government railways of the four Provinces were administered separately, those of the Cape of Good Hope and Natal being known as the *Cape Government Railways* and the *Natal Government Railways* respectively, and those of the Transvaal and the Orange Free State as the *Central South African Railways*, subsequent to the Anglo-Boer War.

2. **Passenger Fares.**—Three classes of accommodation are provided for passenger traffic, viz., first, second, and third. In addition, special native coaches are used, the fares for which are lower than third class fares for distances over 115 miles.

The fares in operation are (*a*) ordinary, (*b*) suburban, (*c*) trip bearer, (*d*) mileage coupon, (*e*) excursion, and (*f*) season—

(*a*) First class ordinary single journey tickets taper down in cost from 2·4d. per mile to 1·09d. per mile. The cost of second class tickets is two-thirds of that of first class tickets. Third class tickets range from 1·2d. per mile to ·56d. per mile. Return fares are calculated at the single fare for the total distance, e.g. a ticket taken out for a return journey of 500 miles is equal to the single fare for 1,000 miles. Special native fares, available only by goods trains or by recognized native trains for certain specified classes of natives, vary in cost from 1·2d. to ·6d. per mile.

(*b*) Suburban fares, ordinary and season, operate in the vicinity of some of the largest towns, and are considerably lower than ordinary fares.

(*c*) Trip bearer books, comprising 20 trips (10 return journeys), or 50 trips (25 return journeys), are issued at a reduction of 10 per cent. and 14 per cent. respectively on ordinary or special suburban fares.

(*d*) Mileage coupon books are used mainly by commercial travellers and business men whose journeys are not sufficiently numerous to justify the outlay on a season ticket. Books of 500 and 1,000 coupons are issued, each coupon being good for one mile. A person using these coupons effects a considerable saving, in some instances as much as 30 per cent.

(*e*) Excursion tickets, at a single fare for the return journey, are issued during recognized holiday periods from certain inland areas to specified holiday resorts at the coast. During the summer, winter, and Easter excursions, similar single fare tickets are issued between all stations on the system.

(*f*) Week-end excursion tickets (all classes), at single fare for the return journey, are issued on Fridays from 5 p.m. and all day on Saturdays and Sundays, available to complete the return journey by midnight on the following Monday.

(*g*) Evening excursion tickets (all classes) are issued from 5 p.m. daily, at single fare for the return journey. The return journey must be commenced not later than by the last available passenger train on the day of issue.

The following reduced fares are granted to school, picnic, and pleasure parties, consisting of not less than ten scholars, in charge of one or more teachers, travelling on excursions organized by the school authorities :—

Scholars, irrespective of age.....	Half single fare, minimum 3d., for the return journey.
Teachers and adults accompanying the party...	Full single fare, minimum 4d., for return journey.

In the case of circular tours the fares are :—

Scholars, irrespective of age.....	Half single fare for half the total mileage.
Teachers and adults accompanying the party...	Full single fare for half the total mileage.

(*h*) Season tickets are issued :—
a) For travel within suburban areas ; and
b) for commercial travellers and other persons travelling over long distances.

The following are the rates for certain distances :—

UNDER (*a*).

Distance.	Weekly.		Half-Monthly.		Monthly.	
	1st Class.	2nd Class.	1st Class.	2nd Class.	1st Class.	2nd Class.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
10 miles.....	0 9 6	0 8 0	0 18 6	0 15 6	1 13 6	1 8 0
20 miles.....	0 11 0	0 9 3	1 1 9	0 18 3	1 19 6	1 13 0
30 miles.....	0 12 6	0 10 6	1 4 9	1 0 9	2 5 0	1 17 6

Quarterly tickets are issued at three times the monthly rate, less 5 per cent.
Half-yearly tickets are issued at six times the monthly rate, less 10 per cent.
Yearly tickets are issued at twelve times the monthly rate, less 20 per cent.

UNDER (*b*).

Distance.	Annual.	
	1st Class.	2nd Class.
	£	£
200 miles.....	41	33
500 miles.....	60	48
1,000 miles.....	83	66
1,500 miles.....	98	78
2,000 miles.....	113	90
3,000 miles.....	138	110
4,000 miles.....	156	125

Half-yearly tickets are charged for at three-fourths of the annual rate levelled to the nearer £1.
Quarterly tickets are charged for at one-half of the annual rate levelled to the next higher £1.

The following table gives particulars of single fares for certain distances :—

RAILWAYS—SINGLE PASSENGER FARES.

Miles.	Class of Ticket.			
	1st.	2nd.	3rd.	Special Native, 3rd.
	s. d.	s. d.	s. d.	s. d.
5.....	1 1	0 8	0 6	0 6
10.....	2 0	1 4	1 0	1 0
25.....	4 9	3 4	2 6	2 6
50.....	9 6	6 3	4 9	4 9
100.....	19 0	12 6	9 6	9 6
250.....	46 0	30 9	22 6	12 6
500.....	89 3	59 6	42 3	25 0
750.....	129 6	86 6	63 3	37 6
1,000.....	167 0	111 6	84 6	50 0
1,500.....	207 6	138 6	108 6	75 0

Oversea passengers arriving at a Union port, Lourenco Marques, or Beira, desiring to travel overland to another Union port, Lourenco Marques, or Beira, to rejoin the same or a following steamer to continue their journey beyond South Africa are granted a 20 per cent. reduction in the ordinary fares. Certificates from the shipping companies concerned must be handed in to the Administration, certifying to the boats by which the passengers have travelled or have booked to travel, and that they are entitled to the privilege under the governing conditions. An order authorizing the privilege is then issued. The reduction of 20 per cent. is also allowed for any rail journey exceeding 300 miles to passengers from overseas visiting South Africa, who hold return portions of steamship tickets from an oversea port to South Africa, or passengers from overseas en route to another country via South Africa who reimbark at port of disembarkation or any other Union port, Lourenco Marques, or Beira. For the purpose of this concession, "oversea" means north of Walvis Bay on the west and north of Beira on the east coast.

3. **Parcels Rates.**—Parcels and excess luggage are conveyed per passenger train according to weight and distance. The following are a few examples of parcels rates:—

RAILWAY PARCELS RATES.

Miles.	½ lb.	2 lb.	5 lb.	30 lb.	50 lb.	100 lb.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
50	0 4	0 4	0 8	1 2	1 9	2 9
100	0 4	0 8	0 10	1 9	2 4	4 2
200	0 4	0 10	1 2	3 2	4 4	7 11
300	0 4	1 1	1 6	4 4	6 4	11 4
500	0 4	1 1	2 0	6 7	9 5	17 3
1,000	0 9	1 6	3 2	10 0	14 11	26 6

Certain produce, such as bread, butter, meat, fruit, fish, eggs, etc., is conveyed at half parcels rates.

4. **Live Stock Rates.***—Large animals are classified as cattle, horses, donkeys, mules, foals, and ostriches.

Small animals are classified as calves under three months old, goats, pigs, sheep, buck, and ostrich chicks under four months old.

A minimum charge as for four head of large animals or twenty-one head of small animals per truck is levied.

RAILWAY LIVE STOCK RATES.

(A) Rate per head (large animals).
(B) Rate per 7 head (small animals).
(C) Charge per short truck of 8 large animals per mile.
(D) Charge per short truck of 49 small animals per mile.

Miles.	A.	B.	C.	D.
	s. d.	s. d.	d.	d.
100	5 9	5 9	5·52	4·83
250	11 3	11 3	4·32	3·78
500	18 7	20 7	3·57	3·46
750	24 10	28 5	3·18	3·18
1,000	27 11	31 11	2·60	2·68
1,500	£1 11	47 11	2·68	2·68

NOTE.—No higher charge is levied than as for 10 head of large animals per short truck, irrespective of the number in excess of 10 head actually loaded in such trucks. Live stock will be accepted for transport under this arrangement solely at owner's risk.

* The special provision made by the Railway Administration for the conveyance of live stock is referred to in Chapter XIII of this *Year Book*.

5. **Goods Rates.**—The rates charged for the conveyance of goods are divided broadly into four classes, viz., (*a*) Mileage, (*b*) Distribution, (*c*) Port, (*d*) Export and Coal Rates.

(*a*) *Mileage Rates.*—The following table shows mileage rates per 2,000 lb., and rates per ton per mile at certain distances for the various classes of traffic enumerated:—

RAILWAY RATES PER TON AND PER TON PER MILE FOR GIVEN DISTANCES.

Tariff No.	Examples of Commodities included in Tariff referred to.	50 Miles.	100 Miles.	250 Miles.	500 Miles.	750 Miles.	1,000 Miles.
1	Clothing, Liquors, Furniture, and General Luxuries..... Per ton	38s. 4d.	66s. 8d.	143s. 4d.	230s. 0d.	286s. 8d.	323s. 4d.
1	" " *	9·2d.	8d.	6·88d.	5·52d.	4·59d.	3·88d.
2	Structural Steelwork and Groceries.....Per ton	28s. 4d.	48s. 4d.	105s. 0d.	166s. 8d.	210s. 0d.	238s. 4d.
2	" " *	6·8d.	5·8d.	5·04d.	4·00d.	3·36d.	2·86d.
3	Machinery, Iron and Steel Rail and Tramway Track, and Paints.....Per ton	21s. 8d.	38s. 4d.	80s. 0d.	126s. 8d.	158s. 4d	178s. 4d.
3	" *	5·2d.	4·6d.	3·84d.	3·04d.	2·53d.	2·14d.
4	Planed Timber, Fuel Oil, Pig-lead, Wool, and Trade Vehicles.....Per ton	16s. 8d.	30s. 0d.	66s. 8d.	105s. 0d.	131s. 8d.	148s. 4d.
4	" " *	4d.	3·6d.	3·2d.	2·52d.	2·11d.	1·78d.
5	Agricultural Implements.....Per ton	10s 0d.	18s. 4d.	43s. 4d.	68s. 4d.	90s. 0d.	105s. 0d.
5	" " *	2·4d.	2·2d.	2·08d.	1·64d.	1·44d.	1·26d.
	(These rates are based on Tariff 5, less 20 per cent.; maximum deduction, 9d. per 100 lb.)						
5	Raw Materials in bulk for Manufacture, Jams, Beer, S.A. Tea, Tobacco, Vinegar, Leather..... Per ton	13s. 4d.	23s. 4d.	53s. 4d.	83s. 4d.	105s. 0d.	120s. 0d.
5	" " *	3·2d.	2·8d.	2·56d.	2d.	1·68d.	1·44d.
6	S.A. Cheese, Butter, Sugar, Ginned Cotton, Crude Oils for Manufacturing, and Crude Fuel Oil in drums of not less than 20 gallons....Per ton	11s. 8d.	18s. 4d.	36s. 8d.	63s. 4d.	80s. 0d.	88s. 4d.
6	" " *	2·8d.	2·2d.	1·76d.	1·52d.	1·28d.	1·06d.
6	Galvanized Iron and Imported Rough Timber.....Per ton	10s. 0d.	18s. 4d.	36s. 8d.	63s. 4d.	80s. 0d.	88s. 4d.
6	" " *	2·4d.	2·2d.	1·76d.	1·52d.	1·28d.	1·06d.
	[Rate 5, less 20 per cent. (maximum, deduction, 9d. per 100 lb.), applies as a maximum.]						
7	Grain and Products, Vegetables, S.A. Farm Seeds, Raw Cotton, Fencing Materials, Disinfectant, and Cattle Dip†.....Per ton	5s. 7d.	7s. 9d.	14s. 1d.	23s. 4d.	29s. 1d.	32s. 4d.
7	" " *	1·34d.	·93d.	·68d.	·56d.	·47d.	·39d.
9	Bricks, Stone, Mining Poles, and Coal.....Per ton	5s. 4d.	7s. 4d.	11s. 8d.	15s. 3d.	18s. 5d.	21s. 4d.
9	" " *	1·28d.	·88d.	·56d.	·37d.	·29d.	·26d.
	(Maximum rate for coal, 20s. per 2,000 lb.)						
10	Lime and Fertilizers.....Per ton	3s. 11d.	5s. 5d.	9s. 6d.	13s. 0d.	14s. 3d.	15s. 0d.
10	" " *	·94d.	·65d.	·46d.	·31d.	·23d.	·18d.

(*b*) *Distribution Rates.*—Certain important inland towns are known as "distribution centres," from which goods may be forwarded at special "distribution" rates, thus stimulating the development of commerce in the inland towns. The broad underlying basis of the "distribution" rates is as follows: Schedule rate‡ to ultimate destination from the port governing the distribution centre, via the distribution centre, *less* the rate‡ from the same port to the distribution centre, plus cartage.

* Per ton per mile.

† Maximum rate on S.A. maize and maize meal, 20s. per 2,000 lb.; S.A. wheat, wheaten meal, and wheaten flour, 22s. 6d. per 2,000 lb.; other grain, 27s. 6d. per 2,000 lb.

‡ Excluding cartage.

(*c*) *Port Rates.*—Special rates apply from the ports to inland towns. The following are the rates from the ports shown, to Johannesburg :—

RAILWAY RATES PER TON AND PER TON PER MILE FROM CERTAIN PORTS TO JOHANNESBURG.

(*a*) Rates per 2,000 lb., exclusive of cartage.
(*b*) Rates per ton (of 2,000 lb.) per mile.

TARIFF No.	PORT AND MILEAGE.							
	Table Bay (Cape Town), 958 miles.		Algoa Bay (Port Elizabeth), 713 miles.		Buffalo Harbour (East London), 666 miles.		Point (Durban), 486 miles.	
	(*a*) s. d.	(*b*) d.	(*a*) s. d.	(*b*) d.	(*a*) s. d.	(*b*) d.	(*a*) s. d.	(*b*) d.
1.....	318 4	3·99	231 8	3·90	226 8	4·08	226 8	5·60
2.....	235 0	2·94	170 0	2·86	165 0	2·97	165 0	4·07
3.....	175 0	2·19	130 0	2·19	125 0	2·25	125 0	3·09
4.....	145 0	1·82	108 4	1·82	103 4	1·86	103 4	2·55
5.....	118 4	1·48	88 4	1·49	83 4	1·50	83 4	2·06
6.....	86 8	1·09	66 8	1·12	61 8	1·11	61 8	1·52

(*d*) *Export Rates and Bunker and Export Coal Rates.*

The following table shows (*a*) rates per 2,000 lb. and (*b*) rates per ton (of 2,000 lb.) per mile for the various classes of traffic enumerated :—

(1) *Export Traffic excepting Coal.*

RAILWAY RATES PER TON AND PER TON PER MILE FOR CERTAIN EXPORT TRAFFIC.

Commodity.		100 miles.	200 miles.	300 miles.	500 miles	1,000 miles
*S.A. Grain.....	(*a*)	7s. 9d.	12s. 1d.	15s 0d.	15s. 0d.	15s. 0d.
"	(*b*)	·93d.	·73d.	·60d.	·36d.	·18d.
*S.A. Kaffir Corn Maize Meal, Lucerne Hay, Lucerne Meal, and Forage.....	(*a*)	7s. 9d.	10s. 0d.	10s. 0d.	10s. 0d.	10s. 0d.
" " "	(*b*)	·93d.	·60d.	·40d.	·24d.	·12d.
S.A. Fruit.....	(*a*)	11s. 8d.	12s. 6d.	12s. 6d.	13s. 6d.	17s. 6d.
"	(*b*)	1·40d.	·75d.	·50d.	·32d.	·21d.
S.A. Tobacco.....	(*a*)	7s. 9d.	12s. 1d.	16s. 0d.	23s. 6d.	32s. 4d.
"	(*b*)	·93d.	·73d.	·64d.	·56d.	·39d.
S.A. Minerals, e.g. Antimony, Lead Ore, Corundum Ore, Iron Oxide, Talc Powder, and Manganese Ore, Crude Asbestos, Copper and Tin Ore, Graphite and Kieselguhr.....	(*a*)	6s. 7d.	8s. 10d.	10s. 10d.	13s. 9d.	19s. 2d.
" " "	(*b*)	·79d.	·53d.	·43d.	·33d.	·23d.
Iron Ore.....	(*a*)	3s. 8d.	6s. 5d.	9s. 3d.	13s. 9d.	19s. 2d.
"	(*b*)	·44d.	·39d.	·37d.	·33d.	·23d.

* Temporary rate.

(2) *Bunker and Export Coal.*

Special rates are in force for export and bunker coal from all collieries to the ports. The following are a few examples of the rates charged, in pence per ton of 2,000 lb. :—

RAILWAY RATES IN PENCE PER 2,000 LB. FOR BUNKER AND EXPORT COAL.

From.	Bunker and Export.	
	To Table Bay (Cape Town).	To L. Marques.
Witbank.....	204d.	162d.

From.	To Point, Natal.	To Table Bay (Cape Town).
Hatting Spruit.....	160·5d.	206d.
Hlobane.....	171d.	207d.

Subject to such conditions and on production of such proof as may be prescribed from time to time by the Administration, a rebate is granted in respect of coal shipped as cargo oversea beyond South or South West Africa.

This rebate is also allowed on coal utilized in bunkering ships carrying export cargo-coal equal to 5,000 tons, or three-quarters of the ship's cargo carrying capacity (whichever is less) from Union ports and Lourenco Marques to places oversea beyond South or South West Africa, and provided that no cargo other than coal is loaded, subject to the following exception. The rebates are :—

Table Bay	2s. 7d.	per ton of 2,000 lb.
Point	7s. 9d.	„ „ „ „
Lourenco Marques	7s. 9d.	„ „ „ „

On the authority of the General Manager, or an Assistant General Manager, a ship, which is otherwise fully laden with export cargo coal, may be permitted to take not more than 500 tons of cargo, other than coal, without being deprived of the benefit of this rebate.

§ 9. Railway Finance.

1. **Earnings.**—The subjoined tables, (i), (ii), (iii), (iv), (v), (vi), and (vii), give particulars of earnings of the South African Railways under various headings for various years. A graph [No. (viii)] is included, showing the variations of net revenue in relation to capital :—

(i) RAILWAY EARNINGS UNDER MAIN HEADS, YEARS 1918-19 TO 1923-24.

Heads.	1918–19.*	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*
	£	£	£	£	£	£
Passengers	4,210,159	5,350,809	6,072,694	5,379,915	5,201,281	5,117,197
Parcels	397,235	533,013	634,790	608,140	573,636	560,345
Goods and Minerals (other than Coal)	6,517,038	8,278,764	9,804,429	9,431,712	9,705,995	10,801,885
Coal	3,083,204	3,665,742	5,538,604	3,818,869	3,354,984	3,812,839
Live Stock	520,315	726,744	683,028	664,601	601,488	596,384
Other Traffic Receipts	80,548	80,088	232,338	251,051	156,644	120,940
Miscellaneous	473,780	534,626	652,574	653,071	552,769	585,054
TOTAL £	15,282,279	19,169,786	23,618,457	20,807,359	20,146,797	21,594,644

* Year ended 31st March.

(ii) RAILWAY EARNINGS—PERCENTAGE OF TOTAL EARNINGS UNDER EACH HEAD, 1918-19 TO 1923-24.

Heads.	1918–19.*	1919–20*	1920–21.*	1921–22.*	1922–23.*	1923–24.*
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Passengers	27·55	27·91	25·71	25·86	25·82	23·70
Parcels	2·60	2·78	2·69	2·92	2·84	2·59
Goods and Minerals (other than Coal)	42·64	43·19	41·51	45·33	48·18	50·02
Coal	20·17	19·12	23·45	18·35	16·65	17·66
Live Stock	3·41	3·79	2·89	3·19	2·99	2·76
Other Traffic Receipts	·53	·42	0·99	1·21	0·78	0·56
Miscellaneous	3·10	2·79	2·76	3·14	2·74	2·71

* Year ended 31st March.

(iii) RAILWAYS—COACHING, GOODS, COAL, LIVE STOCK AND MISCELLANEOUS RECEIPTS, 1910 TO 1923–24.

Year.	Coaching.	Goods.	Coal.	Live Stock.	Miscellaneous.	Total.
	£	£	£	£	£	£
1910	3,200,502	6,463,161	2,017,130	384,802	291,937	12,357,532
1911	3,495,211	6,150,428	2,014,242	388,595	280,789	12,329,265
1912	3,724,981	6,130,732	1,969,182	388,086	273,376	12,486,357
1913	3,815,913	6,044,613	1,890,799	379,287	258,143	12,388,755
1914	3,631,134	5,396,131	1,842,809	448,995	254,135	11,573,204
1915	3,888,887	5,651,294	1,776,100	596,983	284,626	12,197,890
1916	3,859,737	5,808,660	2,815,244	466,683	306,743	13,257,067
Three months ended 31st March, 1917	998,267	1,446,053	820,111	140,877	155,726	3,561,034
*1917–1918	4,252,243	5,932,736	3,152,412	524,921	453,548	14,315,860
*1918–1919	4,687,942	6,517,038	3,083,204	520,315	473,780	15,282,279
*1919–1920	5,963,909	8,278,764	3,665,743	726,744	534,626	19,169,786
*1920–1921	6,939,822	9,804,429	5,538,604	683,028	652,574	23,618,457
*1921–1922	6,239,107	9,431,712	3,818,868	664,601	653,071	20,807,359
*1922–1923	5,931,561	9,705,995	3,354,984	601,488	552,769	20,146,797
*1923–1924	5,798,482	10,801,885	3,812,839	596,384	585,054	21,594,644

* Year ended 31st March.

(iv) RAILWAYS—COACHING RECEIPTS PER AVERAGE OPEN MILE, PER TRAIN MILE AND PER PASSENGER JOURNEY, 1916 TO 1923–24.

Year.	Average Open Mileage. †	Number of Passenger Train Miles.	Number of Passenger Journeys.	Coaching Receipts.			
				Total.	Per Open Mile.	Per Train Mile.	Per Passenger Journey.
				£	£	d.	d.
1916	9,209	9,675,519	45,607,046	3,859,737	419	95·74	20·31
1917–18	9,473	9,018,279	51,178,883	4,252,243	449	113·06	19·94
1918–19	9,529	8,470,485	51,493,889	4,687,942	492	132·83	21·85
1919–20	9,542	9,796,596	60,732,100	5,963,900	625	146·10	23·57
1920–21	9,559	11,126,722	64,069,138	6,939,822	726	149·68	26·00
1921–22	9,559	10,698,799	61,427,474	6,239,107	653	140·04	24·38
1922–23	10,987	10,879,480	61,582,447	5,931,561	540	130·84	23·12
1923–24	11,066	11,632,489	65,811,610	5,798,482	524	119·63	21·15

† Includes 50 miles leased from the Natal–Zululand Railway Company.

(v) RAILWAYS—GOODS, COAL AND LIVE STOCK RECEIPTS, PER OPEN MILE, PER GOODS TRAIN MILE, AND PER TON CARRIED, 1916 TO 1923–24.

Year.	Average Open Mileage. †	Number of Goods Train Miles.	Number of Tons Carried. *	Goods Receipts.			
				Total.	Per Open Mile.	Per Train Mile.	Per Ton Carried (Goods and Coal).
				£	£	d.	d.
1916	9,209	23,808,782	13,418,508	9,090,587	987	91·63	154·24
1917–18	9,473	23,812,053	13,936,502	9,610,069	1,015	96·91	156·45
1918–19	9,529	22,621,725	14,111,136	10,120,557	1,062	105·60	163·28
1919–20	9,542	23,778,012	14,796,405	12,671,251	1,328	127·90	205·53
1920–21	9,559	24,847,057	16,434,541	16,026,061	1,677	154·79	234·03
1921–22	9,559	21,954,267	15,220,762	13,915,181	1,456	152·12	219·41
1922–23	10,987	22,146,693	15,718,864	13,662,466	1,244	148·06	208·60
1923–24	11,066	26,521,201	18,838,573	15,211,108	1,375	137·65	186·19

* Exclusive of live stock tonnage.
† Includes 50 miles leased from the Natal–Zululand Railway Company.

(vi) EARNINGS UNDER EACH HEAD PER AVERAGE OPEN MILE, PER TRAIN MILE AND PER CENT. OF TOTAL EARNINGS, YEARS 1913 TO 1923-24.

Year and Description.	Passengers.	Parcels.	Goods.	Coal.	Live Stock.	Other Traffic.	Miscellaneous	Total.
Per Average Open Mile :	£	£	£	£	£	£	£	£
1913	423	45	756	237	47	10	32	1,550
1914	379	43	640	219	53	9	30	1,373
1915	396	40	648	204	68	9	33	1,398
1916	374	37	631	306	51	8	33	1,440
*1917-18	402	39	626	333	55	9	48	1,512
*1918-19	442	42	683	324	54	9	50	1,604
*1919-20	561	56	868	384	76	8	56	2,009
*1920-21	635	67	1,026	579	72	24	68	2,471
*1921-22	563	64	987	399	70	26	68	2,177
*1922-23	474	52	884	305	55	14	50	1,834
*1923-24	462	50	976	345	54	11	53	1,951
Per Train Mile :—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1913	2 2·7	0 2·9	3 11·8	1 2·9	0 3·0	0 0·6	0 2·0	8 1·9
1914	2 1·8	0 2·9	3 7·6	1 2·9	0 3·6	0 0·6	0 2·1	7 9·5
1915	2 3·9	0 2·8	3 9·6	1 2·3	0 4·8	0 0·6	0 2·3	8 2·3
1916	2 0·7	0 2·4	3 5·6	1 8·2	0 3·3	0 0·6	0 2·2	7 11·0
*1917-18	2 3·8	0 2·7	3 7·4	1 11·0	0 3·8	0 0·6	0 3·3	8 8·6
*1918-19	2 8·4	0 3·1	4 2·3	1 11·8	0 4·1	0 0·6	0 3·6	9 9·9
*1919-20	3 2·2	0 3·8	4 11·2	2 2·2	0 5·2	0 0·6	0 3·8	11 5·0
*1920-21	3 4·5	0 4·2	5 5·4	3 1·0	0 4·6	0 1·6	0 4·3	13 1·6
*1921-22	3 3·5	0 4·5	5 9·3	2 4·1	0 4·9	0 1·8	0 4·8	12 8·9
*1922-23	3 1·8	0 4·2	5 10·5	2 0·4	0 4·4	0 1·1	0 4·0	12 2·4
*1923-24	2 8·2	0 3·5	5 8·0	2 0·0	0 3·7	0 0·7	0 3·7	11 3·8
Per cent. of Total Earnings :—								
1913	27·26	2·91	48·79	15·26	3·06	0·63	2·09	100·00
1914	27·57	3·14	46·63	15·92	3·88	0·67	2·19	100·00
1915	28·34	2·89	46·33	14·56	4·89	0·65	2·34	100·00
1916	25·97	2·55	43·82	21·24	3·52	0·59	2·31	100·00
*1917-18	26·56	2·58	41·44	22·02	3·67	0·58	3·17	100·00
*1918-19	27·55	2·60	42·64	20·18	3·40	0·53	3·10	100·00
*1919-20	27·91	2·78	43·19	19·12	3·79	0·42	2·79	100·00
*1920-21	25·71	2·69	41·51	23·45	2·89	0·99	2·76	100·00
*1921-22	25·86	2·92	45·33	18·35	3·19	1·21	3·14	100·00
*1922-23	25·82	2·84	48·18	16·65	2·99	0·78	2·74	100·00
*1923-24	28·70	2·59	50·02	17·66	2·76	0·56	2·71	100·00

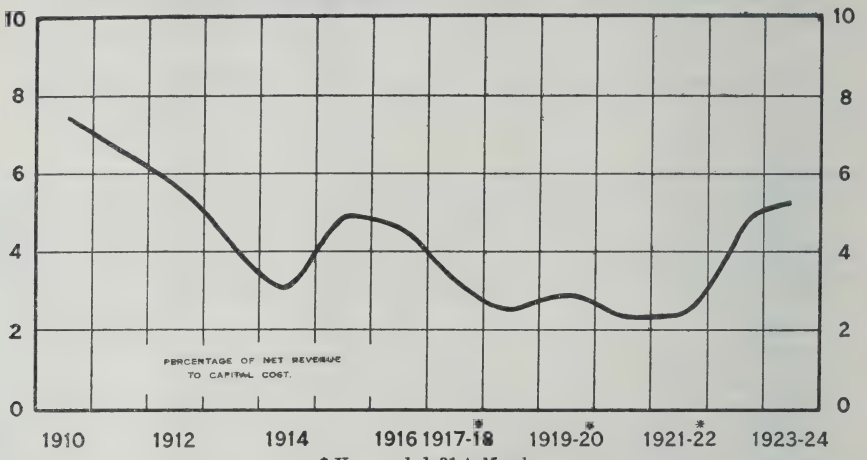
* Year ended 31st March.

(vii) RAILWAYS—NET REVENUE, NET REVENUE PER CENT. OF CAPITAL AND NET REVENUE PER AVERAGE OPEN MILE WORKED AND PER TRAIN MILE RUN, CALENDAR YEARS 1910 TO 1916, AND FINANCIAL YEARS 1917-18, AND SUCCEEDING YEARS.

Year.	Net Revenue.	Per Cent. of Capital.	Per Average Open Mile.	Per Train Mile.
	£	£ s. d.	£	d.
1910	5,565,905	7 9 11	804	56·65
1911	5,063,302	6 12 2	698	47·61
1912	4,485,564	5 13 1	590	38·21
1913	3,309,056	4 2 3	414	26·16
1914	2,651,462	3 0 3	315	21·42
1915	4,216,432	4 19 10	481	33·93
1916	4,090,911	4 13 0	444	29·32
*1917-18	3,034,773	3 5 8	320	22·19
*1918-19	2,317,575	2 9 8	243	17·89
*1919-20	2,750,783	2 18 2	288	19·66
*1920-21	2,260,449	2 6 4	236	15·08
*1921-22	2,471,741	2 8 6	258	18·17
*1922-23	4,645,465	4 9 3	423	33·76
*1923-24	5,750,450	5 6 4	520	36·17

* Year ended 31st March.

(viii) **RAILWAYS—GRAPH ILLUSTRATING VARIATIONS IN PERCENTAGE OF NET REVENUE TO CAPITAL.**



* Year ended 31st March.

EXPLANATION OF THE GRAPH.—The vertical height of each square represents 2 per cent., and the base of each square an interval of one year.

2. **Working Expenditure.**—Particulars as to the working and recurrent expenditure of the South African Railways are given under various headings in the subjoined tables (i), (ii), (iii), and (iv), for the years stated in each case :—

(i) **RAILWAYS—TOTAL WORKING EXPENDITURE, 1918–19 TO 1923–24.**

Expenditure.	1918–19.*	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923-24.*
	£	£	£	£	£	£
Maintenance of Way and Works.	2,063,156	2,731,800	3,453,259	2,904,633	2,637,151	2,626,149
Maintenance of Rolling Stock :—						
Locomotives	1,141,804	1,531,833	2,002,401	2,045,573	2,046,324	1,915,852
Motor Vehicles	—	—	—	—	—	—
Coaching Stock	386,609	474,926	545,754	537,991	596,399	653,847
Goods Stock	602,698	823,345	1,037,917	1,055,310	1,042,439	994,928
Running Expenses	2,641,455	3,463,223	4,287,259	3,838,914	3,540,843	3,804,972
Traffic Expenses :—						
Superintendence and Station Expenses	2,433,517	3,389,619	4,271,131	3,909,482	3,588,247	3,633,132
Advertising	10,214	12,080	31,667	26,622	37,731	39,435
Compensation	70,257	90,462	148,718	68,343	44,736	35,254
General Charges	243,568	314,011	378,902	367,212	351,751	336,545
Superannuation	197,881	244,092	279,729	311,002	321,257	318,652
Cartage	292,836	380,325	447,143	371,952	339,597	360,342
TOTAL ORDINARY WORKING EXPENDITURE.....£	10,083,995	13,455,716	16,883,880	15,437,034	14,546,475	14,719,108
Relaying, Strengthening, etc...	155,280	196,120	155,211	109,568	134,131	—
Depreciation :— Permanent Way and Works.. / Rolling Stock.....	1,441,598	1,474,167	1,607,822	1,667,673	842,404	1,261,625
TOTAL WORKING EXPENDITURE.....£	11,680,873	15,126,003	18,646,913	17,214,275	15,523,010	15,980,733
Balance (being Surplus of Revenue over Expenditure).....	3,601,406	4,043,783	4,971,544	3,593,084	4,623,787	5,613,911
TOTAL.....£	15,282,279	19,169,786	23,618,457	20,807,359	20,146,797	21,594,644

* Year ended 31st March.

(ii) RAILWAYS—WORKING EXPENDITURE UNDER EACH MAIN HEAD PER AVERAGE OPEN MILE AND PER TRAIN MILE, 1919–20 TO 1923–24.

Head of Expenditure.	Per Average Open Mile.					Per Train Mile.				
	1919–20*	1920–21.*	1921–22.*	1922–23.*	1923–24.*	1919–20*	1920–21.*	1921–22.*	1922–23.*	1923–24.*
	£	£	£	£	£	s. d.	s. d.	s. d.	s. d.	s. d.
Maintenance of Permanent Way and Works.....	286	361	304	240	237	1 7·5	1 11·0	1 9·4	1 7·1	1 4·5
Maintenance of Rolling Stock—										
Locomotives....	161	210	214	186	173	0 11·0	1 1·4	1 3·1	1 2·9	1 0·0
Coaching Stock..	50	57	56	54	59	0 3·4	0 3·7	0 3·9	0 4·3	0 4·1
Goods Stock....	86	109	110	95	90	0 5·9	0 6·9	0 7·8	0 7·6	0 6·3
Running Expenses.	363	448	402	322	344	2 0·8	2 4·6	2 4·2	2 1·7	1 11·9
Traffic Expenses—										
Superintendence and Station Expenses.....	355	447	409	327	328	2 0·2	2 4·5	2 4·7	2 2·1	1 10·9
Advertising.....	1	3	3	4	4	0 0·1	0 0·2	0 0·2	0 0·3	0 0·3
Compensation...	9	15	7	4	3	0 0·6	0 1·0	0 0·5	0 0·3	0 0·2
General Charges...	59	69	71	61	59	0 4·0	0 4·4	0 5·0	0 4·9	0 4·1
Cartage.....	40	47	40	31	33	0 2·7	0 3·0	0 2·7	0 2·5	0 2·3
TOTAL (excluding Renewals and Relaying, etc.)	1,410	1,766	1,616	1,324	1,330	8 0·2	9 4·7	9 5·5	8 9·7	7 8·6
Relaying, Strengthening, etc.....	21	16	11	12	—	0 1·4	0 1·0	0 0·8	0 1·0	—
Renewals— Rolling Stock. Permanent Way	154	169	174	77	114	0 10·5	0 10·7	1 0·2	0 6·1	0 7·9
TOTAL (including Renewals and Relaying, etc.)	1,585	1,951	1,801	1,413	1,444	9 0·1	10 4·4	10 6·5	9 4·8	8 4·5

* Year ended 31st March.

(iii) RAILWAYS—WORKING EXPENDITURE UNDER EACH MAIN HEAD PER CENT. OF EARNINGS AND EXPENDITURE, 1919–20 TO 1923–24.

Head of Expenditure.	Per Cent. of Total Earnings.					Per Cent. of Expenditure.				
	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Maintenance of Permanent Way and Works.....	14·25	14·62	13·96	13·09	12·16	18·06	18·52	16·87	16·99	16·43
Maintenance of Rolling Stock—										
Locomotives....	7·99	8·48	9·83	10·16	8·87	10·13	10·74	11·88	13·18	11·99
Coaching Stock..	2·48	2·31	2·58	2·96	3·03	3·14	2·93	3·13	3·84	4·09
Goods Stock....	4·30	4·40	5·07	5·17	4·61	5·44	5·57	6·13	6·72	6·23
Running Expenses.	18·06	18·15	18·44	17·58	17·62	22·90	22·99	22·30	22·81	23·81
Traffic Expenses—										
Superintendence & Station Expenses	17·68	18·09	18·79	17·81	16·82	22·41	22·90	22·71	23·12	22·73
Advertising.....	·06	·13	·13	0·19	0·18	·08	·17	·16	0·24	0·25
Compensation....	·47	·63	·34	0·22	0·16	·60	·80	·40	0·29	0·22
General Charges...	2·92	2·79	3·25	3·34	3·04	3·69	3·53	3·94	4·33	4·10
Cartage.....	1·98	1·89	1·79	1·68	1·67	2·51	2·40	2·16	2·18	2·25
TOTAL (excluding Renewals and Relaying, etc.)..	70·19	71·49	74·18	72·20	68·16	88·96	90·55	89·68	93·70	92·10
Relaying, Strengthening, etc.....	1·02	·66	·53	0·67	—	1·29	·83	·64	0·87	—
Renewals— Rolling Stock... Permanent Way	7·69	6·80	8·02	4·18	5·84	9·75	8·62	9·68	5·43	7·90
TOTAL (including Renewals and Relaying, etc.)..	78·90	78·95	82·73	77·05	74·00	100·00	100·00	100·00	100·00	100·00

* Year ended 31st March.

(iv) RAILWAYS—WORKING EXPENSES, TOTAL, PER AVERAGE OPEN MILE WORKED AND PER TRAIN MILE RUN, YEARS 1910 TO 1923–24.

Year.	Working Expenses.	Per Average Open Mile.	Per Train Mile.
	£	£	s. d.
1910.....	6,862,684	992	5 9·8
1911.....	7,441,566	1,026	5 10·0
1912.....	8,112,674	1,067	5 9·1
1913.....	8,964,690	1,122	5 10·9
1914.....	8,840,208	1,049	5 11·4
1915.....	7,862,642	901	5 3·4
1916.....	8,891,773	966	5 3·7
1917–18*.....	10,817,669	1,143	6 7·1
1918–19*.....	11,680,873	1,225	7 6·1
1919–20*.....	15,126,003	1,585	9 0·1
1920–21*.....	18,646,913	1,951	10 4·4
1921–22*.....	17,214,275	1,801	10 6·5
1922–23*.....	15,523,010	1,413	9 4·8
1923–24*.....	15,980,733	1,444	8 4·5

* Year ended 31st March.

3. **Expenditure from Capital.**—The subjoined table gives particulars as to capital expenditure on the South African Railways from 31st May, 1910, together with the interest paid, the profit and loss, and the percentage of profit and loss to the total expenditure from capital :—

RAILWAYS—CAPITAL, INTEREST ON CAPITAL (OPEN LINES), PROFIT AND LOSS.*

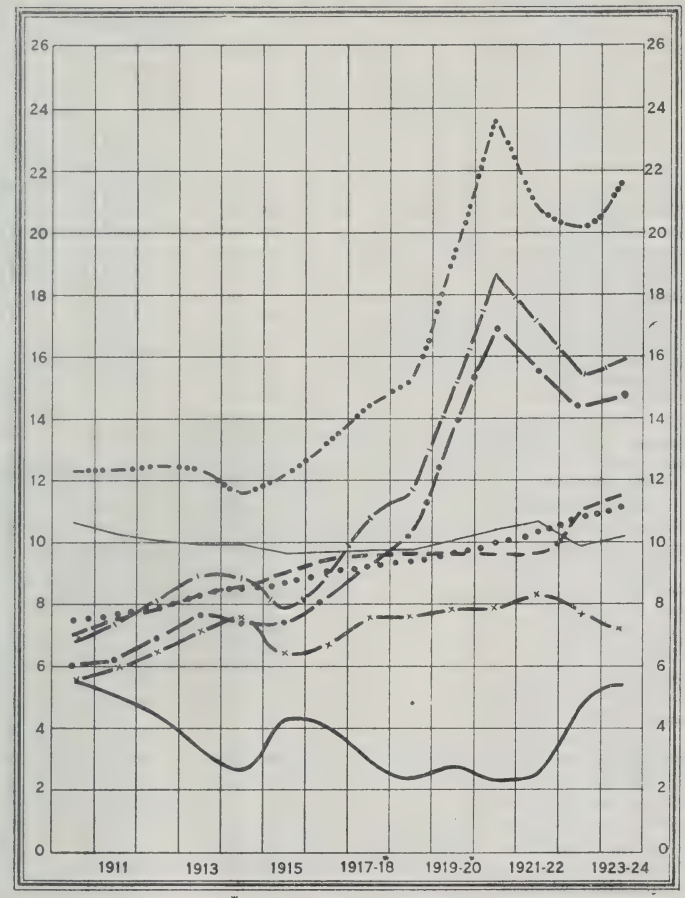
Period.	Capital Expenditure to end of Period.	Interest.	Profit and Loss (—).	Percentage of Profit or Loss to Capital.
	£	£	£	Per cent.
1910†.....	75,100,228	1,344,866	2,019,965	2·56
1911.....	77,576,357	2,426,973	2,636,329	3·40
1912.....	79,371,503	2,619,470	1,866,094	2·35
1913.....	82,574,580	2,751,314	571,242	0·69
1914.....	84,777,765	2,855,986	— 191,024	0·23
1915.....	86,990,040	2,919,552	1,310,380	1·52
1916‡.....	91,376,156	3,102,162	988,750	1·08
1917§.....	92,080,119	778,669	354,880	0·39
1917–18‖.....	92,936,714	3,216,525	— 181,752	0·20
1918–19‖.....	93,908,143	3,213,842	— 896,267	0·95
1919–20‖.....	96,408,435	3,310,725	— 559,942	0·58
1920–21‖.....	99,821,886	3,533,420	— 1,272,972	1·28
1921–22‖.....	103,355,073	3,864,472	— 1,392,731	1·34
1922–23‖.....	108,658,662	4,008,906	636,559	0·58
1923–24‖.....	112,890,949	4,025,809	1,724,641	1·53

* Amount carried to distribution account.
† Represents the seven months from date of Union (31st May, 1910) to 31st December, 1910.
‡ For the year 1915 no provision for depreciation was made in working expenses, but a special appropriation of £958,497 was made to the Renewal Fund at 31st March, 1916, from the profit for the year.
§ Three months ended 31st March, 1917.
‖ Year ended 31st March.

4. **Cost of Construction.**—The subjoined table gives particulars as to the cost of construction of new lines completed since the establishment of the Union. The sixth and previous issues of this *Year Book* gave some further tables illustrating the construction of lines of standard gauge at a high and low average cost per mile, and the average cost per mile of lines of 2 ft. gauge.

The average cost per mile open of lines of 3 ft. 6 in. gauge in the Union is £8,035, and of lines of 2 ft. gauge, £2,798.

GRAPH SHOWING THE FINANCIAL POSITION OF GOVERNMENT RAILWAYS, YEARS 1911 TO 1923–24.



*YEAR ENDED 31ST. MARCH.

EXPLANATION OF GRAPH:- EACH LARGE SQUARE HORIZONTALLY REPRESENTS ONE CALENDAR YEAR AND, VERTICALLY AS UNDER:-

IN CASE OF PERCENTAGE OF EXPENDITURE TO GROSS REVENUE ... ADD 0
CAPITAL COST PER OPEN MILE (AVERAGE) ... ... ,, 000
OPEN MILES ... ... ,, 000
GROSS REVENUE, NET REVENUE, EXPENDITURE ... ... ,, 000,000
CAPITAL COST ... ... ,, 0,000,000

RAILWAY FINANCE:-

GROSS REVENUE
EXPENDITURE INCLUDING DEPRECIATION
EXPENDITURE EXCLUDING DEPRECIATION
CAPITAL COST PER OPEN MILE (AVERAGE)
CAPITAL COST
OPEN MILES
PERCENTAGE OF EXPENDITURE TO GROSS REVENUE
NET REVENUE

RAILWAYS—COST OF NEW LINES COMPLETED FROM THE ESTABLISHMENT OF THE UNION TO THE 31st MARCH, 1924.

Year of Opening.	Line.	Length.	Expenditure since 31/5/10.	Total Expenditure to 31/3/24.
	3 ft. 6 in. Gauge :—	Miles. Ch.	£	£
1913.	George–Oudtshoorn	45 30	404,343	462,002
1912.	Wolseley–Ceres	10 05	112,158	124,383
1911.	Eende Kuil–Graafwater	48 12	43,552	118,242
1912.	Schoombie–Hofmeyr	31 06	86,821	91,163
1912.	Malenge–Llewellyn	19 51	109,478	126,590
,, .	Llewellyn–Franklin	4 66	25,977	25,977
,, .	Lady Grey–Motkop	20 29	84,821	115,330
,, .	Cape Flats–Ottery Road–Diep River	2 50	8,723	8,723
1911.	Pietersburg–Bandolier Kop	71 0	117,854	225,501
,, .	Lichtenburg District	141 20	235,193	468,344
,, .	Ermelo–Piet Retief	70 07	142,144	240,737
1912.	Newington–Tzaneen	127 44	614,502	617,753
,, .	Tzaneen–Groot Letaba	2 18		
1913.	Nelspruit–Sabie	55 54	385,579	387,787
1914.	Sabie–Graskop	21 46		
1912.	Standerton–Vrede	44 29	167,066	196,025
1915.	Benoni–Welgedacht	16 16	61,629	123,784
1911.	Alberton Branch	3 29	14,284	14,306
1912.	Waterworks–Wepener	57 79	117,048	198,114
1911.	Bethlehem–Reitz	35 44	141,445	147,082
,, .	Howick Branch	2 44	8,555	8,831
1915.	Graafwater–Klaver	30 65	150,185	150,185
,, .	Caledon–Protem	53 24	199,738	199,738
1913.	Butterworth–Idutywa	26 74	89,552	108,795
1914.	Bandolier Kop–Messina	96 10	722,734	722,734
1915.	Groot Letaba–Zoekmakaar	53 08		
1912.	Zeerust–Buhrmans Drift	31 64	87,201	87,201
1913.	Piet Retief–Vryheid	76 62	320,431	320,431
1914.	Reitz–Frankfort	46 28	203,882	203,882
1913.	Lindley Road–Senekal	27 45	93,564	93,564
1914.	Greytown–Krantzkop	31 53	123,267	123,267
,, .	Winterton–Bergville	18 05	75,698	75,698
1916.	Idutywa–Umtata	70 56	278,645	278,645
1915.	Motkop–Glen Almond	19 67	59,061	59,061
,, .	Aliwal North–Zastron	55 33	237,740	237,740
,, .	Carnarvon–Twee Rivieren–Calvinia	194 17	545,810	545,810
1916.	Delarey–Pudimoe	79 40	261,362	261,362
,, .	Bethal–Volksrust	106 12	397,749	397,749
1915.	Fauresmith–Koffyfontein	32 57	72,084	72,084
,, .	Westleigh–Vierfontein	52 39	162,719	162,719
,, .	Vierfontein–Bothaville	23 04	64,729	64,729
1915.	Dalton–Glenside	11 65	34,098	34,098
,, .	Schroeders–Burnshill	14 79	57,092	57,092
,, .	Donnybrook–Underberg	38 59	127,767	127,767
1917.	Gingindhlovu–Eshowe	19 75	149,772	149,772
1915.	Prieska–Upington South	142 37	301,257	301,257
,, .	Upington South–Border	172 30	233,030	233,030
,, .	Border–Kalkfontein		228,003	228,003
1923.	Kamfersdam–Wintersrush	34 62	88,683	88,683
,, .	Belmont–Douglas	53 22	161,465	161,465
,, .	Pienaars River–Tuinplaats	29 75	55,589	72,041
	TOTAL	2,476 26	8,464,079	9,319,276

RAILWAYS—COST OF NEW LINES COMPLETED FROM THE ESTABLISHMENT OF THE UNION TO THE 31ST MARCH, 1924—*continued.*

Year of Opening	Line.	Length.	Expenditure since 31/5/10.	Total Expenditure to 31/3/24.
	2 ft. Gauge :—	Miles. Ch.	£	£
1913.	Hopefield–Hoetjes Bay	43 25	78,156	84,464
1911.	Alfred County Railway	24 60	26,883	142,533
„ .	Port Shepstone–Paddock			
„ .	Umlaas Road–Mid Illovo	26 60	21,946	69,370
1914.	Gamtoos–Patentie	16 64	71,467	71,467
„ .	Ixopo–Madonella	18 11	45,011	45,011
1917.	Paddock–Harding	51 55	140,261	140,261
	TOTAL	181 35	383,724	553,106
	GRAND TOTAL	2,657 61	8,84[illegible],803	9,87[illegible]2,382

§ 10. Land Transportation : Miscellaneous.

1. **Tramways.**—All public tramways in the Union used for the conveyance of passengers now employ electric traction, those at Bloemfontein and Boksburg being of the trackless type. The tramways of Cape Town (City and Camp's Bay), Kimberley and Port Elizabeth are owned by companies ; but elsewhere are owned and controlled by the municipalities. The following are the existing tramways in operation :—

Cape of Good Hope—
Cape Town and Suburbs, Camp's Bay, East London, Kimberley and Port Elizabeth.
Natal—
Durban and Pietermaritzburg.
Transvaal—
Pretoria, Boksburg, and Johannesburg.
Orange Free State—
Bloemfontein.

The following table shows the length of routes in the case of each tramway in the Union and other particulars as to equipment, the number of employees, capital, revenue, expenditure and other matters :—

TRAMWAY SYSTEMS OF UNION, 1923-24.

(*a*) CAPE OF GOOD HOPE.

Heading.	Cape of Good Hope.				
	Cape Town City Tramways Co.,Ltd.	Camp's Bay Tramway Co., Ltd.	East London.	Kimberley.	Port Elizabeth.
Date of establishmeut	1896	1901	1900	1905	1895
Gauge	4 ft. 8½ in.	4 ft. 8½ in.	4 ft. 8½ in.	3 ft. 6 in.	4 ft. 8½ in.
Length of route.....miles	22	6·87	7·74	34·5	10·099
Length of track.....miles	27·75	6·87	9·99	35·5	15·947
Total capital expenditure.....£	*	260,000	86,985	*	234,934
Revenue.....£	327,553	29,855	32,892	9,510	71,342
Expenditure.....£	242,043	28,010	26,147	39,646	53,176
Number of vehicles	118	17	17	67	39
Car miles run	2,306,050	232,028	276,474	567,664	727,751
Number of passengers carried	26,778,917	1,001,555	3,509,741	5,958,177	5,015,239
Number of units used	5,406,338	515,366	531,507	1,226,722	1,471,280
Number of employees—					
European	498	44	56	78	124
Other	246	22	18	73	56
TOTAL	744	66	74	151	180

* Figures not available.

(*b*) NATAL, TRANSVAAL, AND ORANGE FREE STATE.

Heading.	Natal.		Transvaal.			Orange Free State.
	Durban.	Pietermaritzburg.	Johannesburg.	Pretoria.	Boksburg.	Bloemfontein.
Date of establishment.....	1902	1904	1906	1910	1914	1915
Gauge.....	4 ft. 8½ in.	4 ft. 8½ in.	4 ft 8½ in.	4 ft. 8½ in.	Trackless.	Trackless.
Length of route.....miles	20·4	6	46	9·75	2·33	10·36
Length of track.....miles	38·39	8	76·36	15·75	—	10·36
Total capital expenditure...£	741,309	122,404	1,220,444	269,263	21,677	68,725
Revenue.....£	294,722	20,531	549,713	84,174	6,967	16,542
Expenditure.....£	286,233	20,188	569,414	88,012	7,621	29,629
Number of vehicles.....	122	16	184	38	6	23
Car miles run.....	2,438,540	262,990	5,539,100	696,871	104,026	247,952
Number of passengers carried	28,225,344	2,695,364	57,499,687	6,513,145	573,952	1,435,145
Number of units used.....	5,998,808	314,597	15,459,677	1,448,510	168,190	284,265
Number of employees—						
European.....	405	47	796	123	18	33
Other.....	113	16	428	21	3	13
TOTAL.....	518	63	1,224	144	21	46

2. **Motor Vehicles.**—The following tables give particulars regarding the number, description, horse-power, and country of origin of motor vehicles licensed, wheel-taxed, or otherwise dealt with by licensing or revenue officers during the year 1924, as returned to the Census and Statistics Office by means of serially numbered duplicate copies of licences or tax receipts, as the case may be :—

(i) NUMBER AND DESCRIPTION OF MOTOR VEHICLES LICENSED IN EACH PROVINCE, 1924 AND 1925.

Province.	Description of Motor Vehicle.				Used for.	
	Car.	Bus, Lorry Van, etc.	Bicycle.	Total.	Private Purposes.	Business or Commercial Purposes.
Cape of Good Hope.....	22,703	1,654	5,470	29,827	24,002	5,825
Natal.....	6,652	735	3,327	10,714	8,447	2,267
Transvaal.....	15,315	863	10,009	26,187	21,343	4,844
Orange Free State*.....	5,749	70	1,013	6,832	5,914	918
UNION, 1924.....	50,119	3,322	19,819	73,560	59,706	13,854
1925.....	63,030	4,258	23,293	90,581	76,588	13,993

* Represents all motor vehicles in respect of which wheel tax was paid.

(ii) HORSE-POWER OF MOTOR VEHICLES—EXCLUDING MOTOR BICYCLES, 1924 AND 1925.

Province.	Horse-Power.								Total Motor Vehicles, excluding Motor Bicycles.
	4–9.	10–14.	15–19.	20–24.	25–29.	30–34.	35–40.	Over 40.	
Cape of Good Hope	403	1,040	2,862	12,158	3,221	2,445	1,707	521	24,357
Natal.....	66	230	780	3,683	1,443	709	326	150	7,387
Transvaal.....	192	805	5,078	7,207	2,065	606	204	21	16,178
Orange Free State..	22	90	652	2,681	814	896	531	133	5,819
UNION, 1924.....	683	2,165	9,372	25,729	7,543	4,656	2,768	825	53,741
1925.....	1,189	3,096	12,147	32,966	8,724	5,147	3,167	852	67,288

(iii) HORSE-POWER OF MOTOR BICYCLES, 1924 AND 1925.

Province.	Horse-Power.			Total Motor Bicycles.
	1–3.	3¼–5¾.	6 and over.	
Cape of Good Hope	1,107	2,317	2,046	5,470
Natal	787	1,398	1,142	3,327
Transvaal	2,396	4,511	3,102	10,009
Orange Free State	173	423	417	1,013
UNION, 1924	4,463	8,649	6,707	19,819
1925	7,365	9,213	6,715	23,293

(iv) COUNTRY OF ORIGIN OF ALL MOTOR VEHICLES, 1924 AND 1925.

Province.	Great Britain.	United States and Canada.	France.	Germany.	Italy.	Other Countries.	Total Motor Vehicles.
Cape of Good Hope	4,887	24,351	298	70	128	93	29,827
Natal	2,367	8,221	43	20	57	6	10,714
Transvaal	7,934	17,759	219	151	90	34	26,187
Orange Free State	637	6,158	10	9	13	5	6,832
UNION, 1924	15,825	56,489	570	250	288	138	73,560
1925	19,902	68,833	807	377	542	120	90,581

3. **Roads and Bridges.***—(a) *Control and Maintenance of Roads.*—In the Province of the *Cape of Good Hope* the roads are divided into main, divisional, and public roads, in terms of Ordinance No. 13 of 1917, which delegates certain functions with regard to roads to divisional and municipal councils. Main and divisional roads in this Province comprise roads which are proclaimed as such in terms of the Ordinance referred to, or established by or under other enactments of the Cape of Good Hope, whereas public roads are those, not being proclaimed roads, over which a right-of-way exists in favour of the public. The Ordinance provides for the construction of main roads out of Provincial revenue, but divisional roads must be made by divisional councils. In both cases, however, it is the duty of divisional councils to maintain the roads, unless the expenditure or maintenance is, owing to special circumstances, beyond the resources of such councils, when the Administrator may contribute to the expenditure. Similar functions are delegated to municipal councils in regard to proclaimed roads within their control. In the case of public roads, no liability devolves upon a council to maintain such roads, but it has the power to do so. Special contributions are made out of Provincial revenue towards the maintenance of certain roads and mountain passes. In the case of roads connecting two divisions, the councils of both divisions may agree to contribute to the construction and maintenance of such roads. The Administrator of the Province has the power to proclaim roads in terms of the Ordinance or to divert or close roads, and it is the duty of councils to determine the width of roads within the area under their control. Inspectors of Roads are charged with the duty of inspecting roads, bridges, pontoons, and ferries under the supervision of the Chief Inspector of Roads.

In *Natal* the maintenance of Government roads is under the control of an Engineer-Superintendent, and the system is purely departmental. Since the establishment of the Union some 800 miles of Government roads have been constructed, the total mileage now being 6,200 miles. The average annual expenditure on main roads since the constitution of the Union, including new construction and salaries, exceeds £171,000. The total number

* Particulars of the road motor transport system of the South African Railway Administration will be found in § 6 above.

of bridges erected on main roads in the Province is 236, of which 140 have been erected between the date of the establishment of the Union and March, 1925, at an approximate cost of £551,000.

In the Province of *Transvaal* the main problem which faces the authorities relates to country roads. Owing to the large sum of money that would be necessary to undertake a comprehensive programme of road construction in the true sense of the word, it has not been possible to do more than maintain existing veld tracks in a passable state, and at the same time gradually lay down certain permanent lines of road, and harden and drain the worst sections by degrees. By these methods permanent lines of communication are gradually being established, more especially in areas where railway development has so advanced as to create certain definite market and forwarding centres.

The farming development, too, has the beneficial effect of hastening the closing of a large number of superfluous tracks, because as land becomes occupied the owner is naturally anxious to have all public roads defined, and by this means traffic is gradually being forced on to permanent lines of branch road as well as on to similar lines of more important road.

Ordinance No. 5 of 1912 takes the place of all previous laws governing country roads. The various municipal authorities have control of their own roads (under Ordinance No. 9 of 1912), but a grant is made by the Administration in respect of certain main roads which pass through municipal areas when funds are available. The one exception to the above arrangement is that of the Main Reef Road. In this case the Provincial Administration is responsible for the construction and maintenance of the road (Section 59 of Ordinance No. 9 of 1912).

Control of roads is vested in the Administrator in Executive Committee. This control is exercised through a superintendent, having district road inspectors in various areas. In each Magisterial District there is a *Road Board* appointed by the Administrator (in terms of Sections 8, 9, and 10 of Ordinance No. 5 of 1912) to assist and advise on road matters generally, thus maintaining a close connection with local requirements.

The approximate mileage of roads within the Province (exclusive of those in municipal areas) is :—

Main Reef Road	50	miles.
Main roads	6,000	,,
Branch roads	14,000	,,
Bridle paths	100	,,

For the financial year 1924–25, the expenditure on roads was £233,000.

In the *Orange Free State* the roads are divided into three classes :—Proclaimed main roads with a width of 100 feet; proclaimed district roads with a width of 100 feet, and farm roads with a width of 50 feet. These farm roads are not proclaimed, nor is any complete registration or record kept of them; they become public roads through undisturbed and uninterrupted use by the public for a period of fifteen years. Further modifications of this general principle are embodied in the *Roads Ordinance*, 1912.

No public road, whether proclaimed or not, may be closed or deviated without formal application to and the consent of the local road authorities. The construction and maintenance of such roads as are constructed and maintained in the Province is done departmentally under the supervision of the Superintendent of Roads and Local Works, who reports to the Provincial Secretary. Only the proclaimed main roads are regularly maintained. The greater proportion of the roads in the Province are the so-called veld roads, but considerable lengths of new gravel roads are constructed each year.

In 1916–17 the principle of instituting a local tax for the repair of local (mostly farm) roads was adopted. A wheel tax was introduced in 1917, the revenue from which is approximately £50,000 per year. The full amount of this tax is allocated for the repair of non-main roads by the District Road Boards. There are fifty-six such boards in the Province.

There are 4,300 miles of main roads and 6,600 miles of district roads in the Province. For the financial year 1925–26 the estimated expenditure on the maintenance of main roads was £40,000, on non-main roads £60,000, and on construction £150,500. The demand for better roads has steadily increased with the agricultural development of the Province, and the question of finding ways and means to meet the necessary expenditure has become of serious importance.

(b) *Statistics.*—The following tables show the mileage of roads and the number of bridges in the Union (excluding roads and bridges under the control of municipalities and village management boards, for which see Chapter III), together with the expenditure during a period of years :—

(i) MILEAGE OF ROADS AND NUMBER OF BRIDGES (EXCLUDING THOSE UNDER CONTROL OF MUNICIPALITIES AND VILLAGE MANAGEMENT BOARDS), UNION, TOGETHER WITH EXPENDITURE, 1918-19 TO 1923-24.

Heading.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24
Cape of Good Hope—						
Roads.....miles	30,775	31,282	32,654	32,638	32,501	32,456
Bridges.....number	224	231	238	238	263	267
Expenditure.....£	166,514	334,330	433,763	435,916	296,665	296,265
Natal—						
Roads.....miles	6,030	6,070	6,140	6,165	6,165	6,200
Bridges.....number	186	194	204	211	217	223
Expenditure.....£	201,293	233,465	274,579	347,032	243,406	280,160
Transvaal—						
Roads.....miles	12,160	12,160	12,060	12,060	18,060	18,060
Bridges.....number	100	109	110	118	127	127
Expenditure.....£	209,230	233,595	340,954	361,859	247,259	231,295
Orange Free State—						
Roads.....miles	9,412	9,420	9,520	9,420	9,502	10,084
Bridges.....number	42	43	59	55	55	63
Expenditure.....£	61,922	151,082	216,932	142,650	189,031	130,061
Union of South Africa—						
Roads.....miles	58,377	58,932	60,374	60,283	66,228	66,800
Bridges.....number	552	577	611	622	662	680
Expenditure.....£	638,959	952,472	1,266,228	1,287,457	976,361	937,781

(ii) PARTICULARS OF ROADS AND BRIDGES UNDER THE CONTROL OF THE PROVINCIAL ADMINISTRATIONS, 1923-24.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	Miles.	Miles.	Miles.	Miles.	Miles.
Roads—					
Main.....	3,929	6,200	6,060	3,851	20,040
Divisional or District.....	26,227	—	12,000	6,233	44,460
Chief Traffic Roads in Transkei	2,300	—	—	—	2,300
TOTAL.....	32,456	6,200	18,060	10,084	66,800
	No.	No.	No.	No.	No.
Bridges—					
Under 20-feet span.....	36	29	7	1	73
20-feet span and over.....	231	194	120	62	607
TOTAL.....	267	223	127	63	680
	£	£	£	£	£
Expenditure—					
Roads.....	280,966	244,926	211,569	120,071	857,532
Bridges.....	15,299	35,234	19,726	9,990	80,249
TOTAL.....£	296,265	280,160	231,295	130,061	937,781

4. **Report of the Roads and Bridges Committee.***—This Committee, appointed in terms of Government Notice No. 164, dated the 21st January, 1925, issued its report on the 18th May of the same year. Its members were Messrs. A. D. Holmwood (Transvaal), Chairman; H. B. Jameson (Natal); J. M. Greathead (Railways); R. Glenday (Cape); C. J. M. Jordaan (Mines); and W. F. Murray (Orange Free State). Subsequently Mr. A. Head (P.W.D.) was added to the membership, and Major N. P. Swinburne (Mines) succeeded Mr. Jordaan.

Terms of Reference.—The terms of reference included the following:—

(*a*) Main, municipal, and country roads.
(*b*) Technical, legal, and financial considerations involved.
(*c*) Organization required for maintaining continuity of co-ordinated policy, procedure, and expenditure for road construction and maintenance over a considerable term of years between the various authorities concerned.
(*d*) Roads as feeders to railways.
(*e*) Roads for promoting agricultural and mining production.
(*f*) Policy and methods in vogue in other countries which might be satisfactorily adopted in the Union.

Expenditure on Roads and Bridges.—The following table shows the expenditure on roads and bridges in the four Provinces since the date of Union:—

Province.	Roads.		Bridges.	
	Revenue.	Loans.	Revenue.	Loans.
	£	£	£	£
Cape—				
Cape Provincial	2,568,488	22,792	136,320	223,869
Divisional Councils	2,855,484†	—	—	—
TOTALS	5,423,972	22,792	136,320	223,869
Transvaal	2,716,270	418,830	39,259	263,769
Orange Free State	1,066,872	478,058	77,667	200,656
Natal	2,341,017	222,629	196,441	432,516

† In addition a large amount was spent annually by Divisional Councils on construction and maintenance of roads and bridges out of loan funds and local taxation.

Road Mileage.—The total mileage of road in each Province afforded official recognition is:—

Cape	†32,500 miles.
Transvaal	20,000 ,,
Orange Free State	10,400 ,,
Natal	6,200 ,,

Report.—The Committee stated there was no question as to the need of better roads in South Africa, and in regard to this provision the Union lagged behind other countries. It was impracticable for the Provincial Administrations to provide for improved road facilities out of current local revenues; therefore to meet the demand for better roads, it was imperative that the Union Government should accept a share of the burden. If the development of a system of main roads to serve the Union as a whole be left to the Provinces, a lack of co-ordinated effort is certain to result. The solution lies in the development by the Union Government of a system of national main roads with a complete disregard of provincial and divisional boundaries. The Central Government's interest in the development of potentially productive areas would also justify it in making provision for the construction of roads to serve such areas, and to connect them efficiently with the main transport system of the country. Concurrently, there should be inaugurated by the Provincial Administrations, policies for the development of provincial main roads.

Roads throughout the Union should be classified into (*a*) National Roads, (*b*) Provincial Main Roads, and (*c*) Provincial Branch Roads.

National Roads.—These should form a primary network of roads joining up the principal centres of industry, and lead towards similar centres in neighbouring territories.

* The full report is published in the *Journal of Industries*, dated July and August, 1925.
† Inclusive of 2,300 miles in the Native Territories.

Provincial Main Roads.—These should form a subsidiary network to serve the general requirements of the Provinces in a similar manner as the national roads serve the Union.

Provincial Branch Roads.—These should embrace all other roads which the Provinces may decide to recognize as provincial roads.

Financial Responsibility.—The apportionment of financial responsibility recommended by the Committee is as follows:—

National roads should be constructed and maintained at the cost of the Union Government, while provincial main roads should be subsidized by the Union Government to the extent of one-third their cost of construction only, the other two-thirds being found by the Provinces by means of long-dated loans. Maintenance charges would be defrayed from provincial or local revenues. Provincial branch roads should be built and maintained by the authorities concerned under their own financial arrangements. The capital expenditure to be met by the Union Government on the proposed national main roads, in length approximating 5,200 miles, is estimated at £3,700,000; the maintenance charges rising from £29,600 in the second year would reach £296,000 in the eleventh and subsequent years. The Union Government's one-third contribution to the construction of 12,300 miles of provincial main roads would amount to £2,850,000, the remaining two-thirds, viz., £5,700,000, being found by the Provinces by borrowing.

The Committee laid emphasis upon the serious results which would follow from any neglect to maintain the roads efficiently after construction, and urged the need for their proper upkeep. It recommended the establishment of a permanent National Road Board to deal with the classification of roads, the consideration of road programmes, the allocation and expenditure of funds, consultation with the Railway Board, and kindred matters.

The following national main roads were proposed:—

(1) Cape Town, Paarl, Fraserburg, Hopetown, Kimberley, Fourteen Streams.
(2) Cape Town, Caledon, Mossel Bay, Port Elizabeth, Grahamstown, East London, Umtata, Kokstad, Umzimkulu.
(3) Port Elizabeth, Uitenhage, Graaff-Reinet, Middelburg, Colesberg Bridge.
(4) East London, King William's Town, Queenstown, Burghersdorp, Bethulie Bridge.
(5) Messina, Louis Trichardt, Pietersburg, Nylstroom, Warmbaths, Pretoria, Johannesburg, Vereeniging.
(6) Mafeking, Zeerust, Rustenburg, Pretoria, Witbank, Belfast, Nelspruit, Komatipoort.
(7) Fourteen Streams, Christiana, Bloemhof, Klerksdorp, Potchefstroom, Johannesburg.
(8) Johannesburg, Heidelberg, Balfour, Standerton, Volksrust.
(9) Middelburg (Transvaal), Carolina, Lake Chrissie, Oshoek (Swaziland border).
(10) Main Reef Road traversing Witwatersrand from Randfontein to Springs.
(11) Colesberg Bridge, Philippolis, Edenburg, Bloemfontein, Kroonstad, Heilbron, Viljoens Drift. The road from the Cape Province entering the Orange Free State at Bethulie Bridge would join this road at Trompsburg.
(12) Aliwal North, Rouxville, Zastron, Wepener, Ladybrand, Ficksburg, Bethlehem, Harrismith, Vrede, Delagers Drift (Transvaal).
(13) Bloemhof, Hoopstad, Ventersburg, Senekal, Bethlehem, Harrismith, Van Reenen's Pass (Natal).
(14) Kimberley, Boshof, Bloemfontein, Thaba 'Nchu, Ladybrand to Basutoland.
(15) Durban, Pietermaritzburg, Estcourt, Ladysmith, Dundee, Newcastle, Charlestown.
(16) Ladysmith to Orange Free State border at Van Reenen's Pass.
(17) Pietermaritzburg, Richmond, Ixopo, East Griqualand.
(18) Pietermaritzburg, Greytown, Mahlabatini, Nongoma, Pongola Poort (Transvaal).

CHAPTER XXI.

POSTS, TELEGRAPHS, AND TELEPHONES.

§ 1. Posts.

1. **Origin and Development of Postal Service in South Africa.**—The first record of any postal service in South Africa is in respect of the primitive system dating as far back as the beginning of the seventeenth century, when boulders on the shores of Table Bay were used by passing vessels as the repository of letters intended for collection and conveyance to their destinations by vessels proceeding in the opposite direction.

The first regular postal communication was that established by Government in 1806.

In 1860 a penny post was started in Cape Town, and in the following year it was also started in Port Elizabeth. In 1864 all places in the Colony between which mails were exchanged twice daily were given the privilege of a penny post. The first mail to the Diamond Fields was despatched from Cape Town on the 19th January, 1871.

The foundation of the South African Postal Union was laid in 1883 by means of separate Conventions entered into between several of the South African Governments. During the same year travelling post offices were first attached to trains on the railway system and the telegraphic money order system was adopted. In 1893 the administration of the Bechuanaland post and telegraph services was placed in the hands of the Postmaster-General of the Cape Colony. In 1895 the Cape Colony entered the Universal Postal Union. The first South African Postal Union Convention came into force in 1898. This secured uniformity of practice and rates of postage between the Cape, Natal, Transvaal, and the Orange Free State. The Portuguese Province of Mozambique became a party to the Union at a later date. In September, 1899, the Imperial Penny Postage (introduced in 1898) was adopted by the Cape Colony.

2. **Postal Service of the Union.**—The Union Department of Posts and Telegraphs was created on the 31st May, 1910, when the Union was constituted. The postal laws and ordinances of the four Provinces of the Union, dating from 1882 in the case of the Cape of Good Hope and Natal, from 1898 in the case of the Transvaal, and from 1903 in the case of the Orange Free State, continued to have effect until the 1st September, 1911, when the "Act to consolidate and amend the laws in force in the Union relating to the Post Office, and to impose certain charges to discourage shipping combinations" (Act No. 10, 1911) was brought into operation. The Act provides that the administration and control of the Department shall, under the Minister of Posts and Telegraphs, be vested in the Postmaster-General, who has the supervision and control of all persons in the service of the Department and all post offices and post and telegraph services. He is authorized to establish, maintain, and abolish mail services, post offices, and savings bank offices; to make and alter postal and telegraph arrangements with other postal and telegraph administrations; and to make regulations for the conduct and guidance of officers and for the conduct of any business entrusted to him, or as to the manner of exercising the powers and duties assigned to him by the Act. He may prescribe the fees, rates, or charges to be demanded or received for the conveyance of postal articles and for the transmission, conveyance, or delivery of telegrams, and for any other service rendered by the Department. The headquarters of the Department are at Pretoria. Mails are conveyed by every description of transport by the aboriginal runner, the post-cart, the modern motor-car, and the travelling (railway) post office. There are in all 1,570 posts exclusive of those conveyed by rail.

3. **Postal Facilities.**—The following statement shows the number of offices open, posting receptacles in use, and private bags in use for a series of years, also the number of inhabitants and the number of square miles to each post office:—

POSTAL FACILITIES, 1912 TO 1925.

Year.	Number of Post Offices Open.	Number of Posting Receptacles in Use (excluding those at Post Offices).	Number of Private Bags in Use.	Number of Inhabitants to each Post Office.	Number of Square Miles to each Post Office.
1912*...	2,644	894	2,785	2,308	179
1913*...	2,783	933	2,976	2,233	170
1914*...	2,451	959	3,038	2,581	193
1915*...	2,478	962	3,011	2,597	191
1916*...	2,522	987	3,077	2,596	187
1917*...	2,604	1,027	3,344	2,557	181
1918*...	2,623	1,030	3,348	2,581	180
1919*...	2,665	1,052	3,244	2,524	177
1920†...	2,684	1,056	3,548	2,547	176
1921†...	2,771	1 074	3,747	2,507	170
1922†...	2,798	1,097	3,486	2,525	169
1923†...	2,805	1,102	3,832	2,558	168
1924†...	2,887	1,111	3,575	2,526	164
1925†...	2,947	1,128	3,660	2,504	160

* 31st December. † 31st March.

There are 43,358 *private boxes* installed at 402 post offices in the Union, and allocated to the various Provinces as follows :—

PRIVATE BOXES IN UNION POST OFFICES.

Provinces.	Total Number of Post Boxes.	Number of Post Boxes Let.	Number of Post Offices Concerned.
Cape Province.....	12,660	8,671	155
Natal.....	5,514	4,073	60
Transvaal.....	20,040	15,114	117
Orange Free State.....	5,144	3,747	70

Private boxes are available for rental purposes at most of the large post offices and the fees vary according to size, from £1. 10s. to £3 10s. per annum for the first year and £1. 5s. to £3. 5s. per annum for subsequent years.

4. **Union Mail Matter.**—The subjoined table gives particulars of mail matter posted in the Union of South Africa and Basutoland for delivery therein during a series of years :—

MAIL MATTER POSTED IN UNION (AND BASUTOLAND) FOR DELIVERY THEREIN, 1912 TO 1924-25.

Year.	Letters (000's omitted).	Post Cards (000's omitted).	Newspapers (000's omitted).	Book and Sample Packets, Printed Papers (000's omitted).	Official Correspondence (000's omitted).	Parcels (000's omitted).	Registered Articles (000's omitted).	Total (000's omitted).
1912...	97,606	6,223	14,640	41,696	12,161	1,851	1,279	175,456
1913...	100,598	7,066	18,545	34,358	12,810	2,018	1,369	176,764
1914...	90,558	6,359	16,690	30,922	11,529	1,817	1,232	159,107
1915...	106,355	6,897	21,285	45,668	12,433	2,130	1,477	196,245
1920–21*	122,420	6,127	22,096	46,391	14,396	3,341	1,997	216,768
1921–22*	108,865	5,494	23,217	51,706	13,879	3,724	2,014†	208,899
1922–23*	111,540	5,856	24,809	50,801	14,576	4,011	2,248†	213,841
1923–24*	122,466	6,044	23,915	62,521	16,751	4,429	2,492	238,618
1924–25*	122,822	5,702	22,348	70,897	15,458	4,734‡	2,203	244,164

* Year 1st April to 31st March. † Includes express articles.
‡ Agricultural, 726,000 ; ordinary, 4,008,000.

NOTE.—No statistics available for years 1916 to 1919.

5. **British and Foreign Mail Matter.**—The following tables give particulars regarding mail matter dispatched to and received from countries beyond the Union :—

(i) **BRITISH AND FOREIGN MAIL MATTER DISPATCHED, 1912 TO 1924-25.**

Year.	Letters (000's omitted).	Post Cards (000's omitted).	Newspapers (000's omitted).	Book and Sample Packets, Printed Papers (000's omitted).	Official Correspondence (000's omitted).	Parcels (000's omitted).	Registered Articles (000's omitted).	Total (000's omitted).
1912...	11,708	1,111	1,991	241	165	91	235*	15,307
1913...	11,063	983	2,391	259	142	92	259*	14,930
1915...	9,498	384	2,153	379	314	116	225*	12,844
1920–21†	8,358	449	1,390	1,287	155	176	226	12,041
1921–22†	10,170	514	1,334	1,533	63	168	246	14,028
1922–23†	9,339	429	1,597	1,476	79	219	280	13,419
1923–24†	10,100	428	1,093	1,923	116	211	302	14,173
1924–25†	11,353	512	1,389	1,696	31	220	295	15,496

* Included in preceding columns. † Year 1st April to 31st March.

NOTE.—No statistics of letters, etc., available for years 1914 and 1916 to 1919. The number of parcels dispatched during these years was : 1914, 57,457 ; 1916, 173,673 ; 1917, 99,817 ; 1918, 174,762 ; 1919, 118,565.

(ii) **BRITISH AND FOREIGN MAIL MATTER RECEIVED, 1911 TO 1924–25.**

Year.	Letters (000's omitted).	Post Cards (000's omitted).	Newspapers (000's omitted).	Book and Sample Packets, Printed Papers (000's omitted).	Official Correspondence (000's omitted).	Parcels (000's omitted).	Registered Articles (000's omitted).	Total (000's omitted).
1911...	13,007	962	9,807	506	82	270	247*	24,634
1912...	13,123	1,017	10,196	1,187	90	280	248*	25,893
1920–21†	9,181	671	3,607	3,185	220	456	403	17,723
1921–22†	11,976	729	4,519	4,120	144	425	337	22,250
1922–23†	11,502	693	5,567	4,567	109	489	349	23,276
1923–24†	13,896	771	5,151	5,312	289	701	416	26,536
1924–25†	13,967	804	4,610	7,093	106	614	347	27,541

* Included in preceding columns. † Year 1st April to 31st March.

NOTE.—No statistics of letters, etc., available for years 1913 to 1919. The number of parcels received during those years was : 1913, 275,768 ; 1914, 208,295 ; 1915, 246,244 ; 1916, 277,772 ; 1917, 263,606 ; 1918, 361,631 ; 1919, 261,138.

6. **Cost of Mail Conveyance.**—The following tables show the cost of mail conveyance, exclusive of the ocean mail service, during a series of years :—

COST OF MAIL CONVEYANCE IN UNION, 1912 TO 1924–25.

Year.	Main and Branch Posts.	Conveyance over Union Railways.	Conveyance over Private Railways.	Landing and Shipping Mails.	Total.
	£	£	£	£	£
1912....	99,534	77,500	4,840	1,900	183,774
1913....	100,969	77,500	3,524	1,949	183,942
1914....	95,966	77,500	3,600	1,949	179,015
1915....	89,063	77,500	3,728	1,949	172,240
1916....		165,231		1,949	167,180
1917....		169,525		2,000	171,525
1918....		168,000		2,000	170,000
1919–20*	97,753	154,111	3,311	2,000	257,175
1920–21*	118,585	173,926	3,311	2,200	298,022
1921–22*	112,412	237,163	3,311	1,905	354,791
1922–23*	108,505	173,429	3,311	1,729	286,974
1923–24*	104,125	136,787	3,311	1,329	245,552
1924–25*	106,948	135,457	3,311	1,289	247,005

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not available.

7. **Number of Employees.**—The following table shows the number of persons employed by the Department of Posts, Telegraphs, and Telephones during a series of years :—

NUMBER OF EMPLOYEES, 1917 TO 1925.

Date.	Administrative, Clerical, and Professional Division.	General Division and Non-Classified Posts.	Learners in Training.	Local Officials and Railway Officials performing Post Office Work.	Total.
1917 (31st March)..	3,191	3,352	124	2,550	9,217
1918 „ ..	3,153	3,602	98	2,602	9,455
1919 „ ..	3,216	3,831	207	2,662	9,916
1920 „ ..	3,541	4,038	321	2,569	10,469
1921 „ ..	4,039	4,449	317	2,690	11,495
1922 „ ..	3,711	4,403	361	2,828	11,303
1923 „ ..	3,560	4,276	142	2,822	10,800
1924 „ ..	3,412	4,371	32	2,954	10,769
1925 „ ..	3,437	4,619	47	3,089	11,192

8. **Financial.**—The following tables give particulars of the financial aspect of the working of the Department of Posts and Telegraphs during a series of years :—

(i) **POSTS, TELEGRAPHS, AND TELEPHONES—FINANCIAL STATISTICS, 1912 TO 1924–25.**

Year.	Cash Receipts.	Value of Government Traffic.	Cash Payments.	Value of Free Services Received.	Total Amount of Money dealt with (000's omitted). †	Revenue Collected for other Departments.
	£	£	£	£	£	£
1912.....	1,624,838	195,458	1,539,356	73,442	21,000	637,921
1913.....	1,663,762	204,770	1,620,977	95,764	21,500	640,188
1914.....	1,651,305	252,392	1,682,907	85,780	21,000	597,827
1915.....	1,745,524	275,068	1,634,569	63,945	22,000	589,269
1916.....	1,775,689	272,488	1,669,230	77,044	22,500	692,279
1917.....	1,913,631	287,706	1,769,717	72,449	23,000	746,920
1918.....	2,017,040	284,228	1,961,945	72,046	23,500	900,398
1919–20*..	2,369,627	300,455	2,387,362	87,747	25,000	1,108,439
1920–21*..	2,785,139	307,073	3,345.225	120,498	26,000	1 288 158
1921–22*..	2,893.757	276 117	3,202,585	132,863	25,425	1.153 729
1922–23*..	2.997,973	281,056	2,785,791	115,553	25,757	1,291 854
1923–24*..	3,179,410	268,372	2,734,621	106,702	26,000	1,426,506
1924–25*...	3,429,128	236,069	2,665,661	113,195	26,000	1,426,346

(ii) **FINANCIAL PARTICULARS OF POSTAL SERVICES, 1912 TO 1924-25.**

Year.	Cash Revenue.	Value of Government Traffic.	Year.	Cash Revenue.	Value of Government Traffic.
	£	£		£	£
1912.....	1,016,974	127,040	1919–20*....	1,370,755	181,173
1913.....	1,049,414	127,950	1920–21*....	1,573,190	200,608
1914.....	1,015,836	129,444	1921–22*....	1,662,154	169,283
1915.....	1,042,325	133,541	1922–23*....	1,741,376	176,593
1916.....	1,028,939	139,666	1923–24*....	1,853,078	161,189
1917.....	1,159,537	147,857	1924–25*....	1,911,665	234,984
1918.....	1,163,835	153,238			

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not available.

† i.e. All expenditure (including loan expenditure), savings bank deposits and withdrawals, money order and postal order issues and repayments, Savings Bank and Union Loan certificates, payment of pensions, revenue collections, etc.

9. **Rates of Postage.**—The following are the principal post office charges :—

PRINCIPAL POST OFFICE CHARGES.

Class of Mail Matter.	For the Union of South Africa, Bechuanaland Protectorate. S.W. Africa, Rhodesia, and Province of Mozambique.	For United Kingdom, Egypt, Palestine, and British Possessions.	For Foreign Countries.
Letters	1d. per 1 oz*	2d. per 1 oz	First oz. 3d.; each additional oz. or part thereof, 1½d.
Post cards, single.	½d. each*	1½d. each	1½d. each.
,, reply paid	1d. each*	3d. each	3d. each.
Newspapers	½d. per 4 oz. for each newspaper up to a maximum weight of 1 lb.	½d. per 2 oz.	½d. per 2 oz.
Printed Papers	½d. per 2 oz.	½d. per 2 oz.	½d. per 2 oz.
Commercial Papers	—	½d. per 2 oz., with a minimum charge of 3d.	½d. per 2 oz., with a minimum charge of 3d.
Accounts, Receipts, and Invoices	½d. per 2 oz.	,, ,,	,, ,,
Sample packets	½d. per 2 oz., with a minimum charge of 1d. in the case of packets addressed to places outside the Union	½d. per 2 oz., with a minimum charge of 1d.	½d. per 2 oz., with a minimum charge of 1d.
Other postal matter not specified above (except parcels and literature for the blind)	1d. for first 4 oz., and ½d. per oz. thereafter	—	—

* As from 1st January, 1926.

Cash on Delivery Fees.

For trade charges up to and including £1	1s.
For every additional £1 or part thereof	3d.

Parcels.

Agricultural parcels addressed to any place within the Union and Basutoland	Up to 1¼ lb.	3d.
	Over 1¼ lb., but not exceeding 3 lb.	6d.
	Over 3 lb., but not exceeding 6 lb.	8d.
	Over 6 lb., but not exceeding 9 lb.	10d.
	Over 9 lb., but not exceeding 11 lb.	1s.
Agricultural parcels addressed to the Bechuanaland Protectorate (except Maun, Kasane, and Ghanzi)	Up to 3 lb.	1s.
	Over 3 lb. but not exceeding 7 lb.	1s. 6d.
	Over 7 lb. but not exceeding 11 lb.	2s.
Ordinary parcels for places within the Union and for Mozambique and South West Africa	Not exceeding 4 oz.	2d.
	Not exceeding 8 oz.	4d.
	Not exceeding 1 lb.	6d.
	For every additional 1 lb. or portion thereof	6d.

For Bechuanaland Protectorate	1s. per lb. (Maun and Kasane 1s. 3d. per lb.).
For Rhodesia (Southern)	1s. 1d. per lb.
For Rhodesia (Northern)	1s. 3d. per lb.
For United Kingdom	9d. per lb.
For British possessions and foreign countries	Special rates have been fixed on an average traffic basis.

10. **Money Orders.**—Money Order Conventions are in force between the Union of South Africa and Commonwealth of Australia, Dominion of Canada, Ceylon, Hong-Kong, India

Kenya Colony, Mauritius, Mozambique, New Zealand, Norway, Nyasaland Protectorate, Rhodesia, St. Helena, United States of America, and Zanzibar. There is also direct money order exchange with the United Kingdom.

There are 790 money order offices in the Union. The maximum amount of a single money order is £40.

(i) VALUE OF MONEY ORDERS AND COMMISSION, 1912 TO 1924-25.

Year.	Money Orders Issued.		Money Orders Paid.		Commission Collected—Amount accruing to Union Government.
	Number.	Value.	Number.	Value.	
		£		£	£
1912	491,738	2,925,518	378,629	2,179,398	24,290
1913	489,829	2,950,126	386,193	2,271,542	23,435
1914	436,541	2,634,608	366,709	2,125,878	19,925
1915	394,983	2,430,167	330,608	1,954,554	17,911
1916	383,010	2,298,229	337,638	2,005,131	16,718
1917	401,125	2,620,090	391,002	2,598,476	18,984
1918	385,311	2,512,331	356,447	2,265,149	17,881
1919–20*	444,060	3,549,881	425,381	2,998,101	30,325
1920–21*	433,078	3,271,225	412,813	3,417,430	14,310
1921–22*	416,696	2,896,910	347,389	2,283,073	22,428
1922–23*	420,429	2,521,916	359,582	2,118,992	20,015
1923–24*	419,006	2,411,167	366,177	2,085,273	20,402
1924–25*	423,955	2,399,219	377,675	2,118,843	20,952

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not available.

(ii) NUMBER AND VALUE OF MONEY ORDERS ISSUED IN THE UNION FOR PAYMENT IN THE UNION AND IN OTHER COUNTRIES, 1919–20 TO 1924–25.

Country.	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*	1924–25.*
	(*a*) Number.					
Australia	4,818	5,770	5,408	5,365	5,301	5,603
Canada	1,008	972	650	614	672	701
Ceylon	29	32	31	28	32	37
France	839	1	—	—	—	—
Hong-Kong	101	87	70	65	59	120
India	12,223	11,622	15,824	12,033	10,425	9,333
Kenya Colony	51	76	98	154	145	158
Mauritius	252	68	111	99	100	83
Mozambique	709	864	622	512	372	446
New Zealand	317	437	338	318	396	458
Norway	339	378	320	288	321	363
Nyasaland	64	218	371	407	548	707
Rhodesia	1,131	1,311	1,329	898	1,272	1,231
St. Helena	32	38	22	29	27	18
South West Africa	937	889	823	692	634	831
United Kingdom	42,202	66,154	69,292	62,254	58,627	57,427
United States of America	15,301	745	4,859	6,694	7,447	8,401
Zanzibar	13	13	10	14	12	19
Total issued in Union for payment in other countries	80,366	89,675	100,178	90,464	86,390	85,936
Total issued in Union for payment in Union	363,694	343,403	316,518	329,965	332,616	338,019
Grand Total	444,060	433,078	416,696	420,429	419,006	423,955

* Year 1st April to 31st March.

(ii) NUMBER AND VALUE OF MONEY ORDERS ISSUED IN THE UNION FOR PAYMENT IN THE UNION AND IN OTHER COUNTRIES, 1919–20 TO 1924–25—(*continued*).

Country.	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*	1924–25.*
			(*b*) VALUE.			
	£	£	£	£	£	£
Australia	18,871	38,287	24,848	21,730	23,895	30,085
Canada	18,583	13,589	4,190	3,176	3,488	3,796
Ceylon	217	314	173	196	219	211
France	2,574	2	—	—	—	—
Hong-Kong	791	812	533	288	266	487
India	207,806	196,534	290,375	178,886	137,910	122,415
Kenya Colony	720	966	1,023	995	855	748
Mauritius	1,840	564	755	505	595	554
Mozambique	7,353	9,630	6,304	3,671	2,218	2,810
New Zealand	1,912	4,236	2,394	1,832	2,539	3,113
Norway	1,658	2,396	1,739	1,042	1,254	1,965
Nyasaland	693	2,563	4,100	3,728	4,849	5,902
Rhodesia	9,960	12,215	13,617	9,532	11,344	10,528
St. Helena	257	331	142	170	245	130
South West Africa	10,091	11,582	9,249	7,670	9,505	8,531
United Kingdom	300,233	617,554	485,282	371,109	339,475	333,798
United States of America	803,608	2,371	11,167	11,969	13,152	14,102
Zanzibar	172	106	67	73	73	115
Total issued in Union for payment in other countries	1,387,339	914,052	855,958	616,572	551,882	539,290
Total issued in Union for payment in Union	2,162,542	2,357,173	2,040,952	1,905,344	1,859,285	1,859,929
GRAND TOTAL £	3,549,881	3,271,225	2,896,910	2,521,916	2,411,167	2,399,219

* Year 1st April to 31st March.

(iii) NUMBER AND VALUE OF MONEY ORDERS ISSUED IN OTHER COUNTRIES FOR PAYMENT IN THE UNION, 1919–20 TO 1924–25.

Country.	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*	1924–25.*
			(*a*) NUMBER.			
Australia	1,950	2,427	2,456	2,426	2,551	2,765
Canada	636	717	593	611	746	831
Ceylon	70	40	23	32	39	30
France	205	16	—	—	—	—
Hong-Kong	23	17	17	20	31	17
India	624	573	121	270	276	273
Kenya Colony	510	299	284	361	521	856
Mauritius	788	334	170	307	355	454
Mozambique	811	1,809	857	142	101	159
New Zealand	385	599	525	454	431	514
Norway	133	117	80	74	123	123
Nyasaland	84	51	45	52	82	141
Rhodesia	6,705	7,106	5,740	4,139	4,809	5,253
St. Helena	224	38	30	146	285	211
South West Africa	6,307	7,070	7,119	5,068	9,073	13,779
United Kingdom	3,896	11,650	11,030	11,984	12,013	11,642
United States of America	1,638	1,211	1,486	1,828	2,304	2,654
Zanzibar	28	24	19	14	12	14
Army Money Orders	37,580	2,860	—	—	—	—
TOTAL	62,597	36,958	30,595	27,928	33,752	39,716

* Year 1st April to 31st March.

(iii) NUMBER AND VALUE OF MONEY ORDERS ISSUED IN OTHER COUNTRIES FOR PAYMENT IN THE UNION, 1919–20 TO 1924–25.—(*continued*).

Country.	1919–20.*	1920–21.*	1921–22.*	1922–23.*	1923–24.*	1924–25.*
			(*b*) VALUE.			
	£	£	£	£	£	£
Australia	6,960	19,463	10,435	10,669	11,943	11,884
Canada	2,450	2,398	1,848	1,838	1,911	2,372
Ceylon	278	164	131	92	84	313
France	1,692	209	—	—	—	—
Hong-Kong	57	60	30	28	97	85
India	9,206	12,849	835	1,851	2,332	2,147
Kenya Colony	6,310	1,467	1,065	1,945	5,769	16,606
Mauritius	14,848	6,992	395	669	1,346	4,440
Mozambique	22,910	42,260	17,352	2,087	725	2,661
New Zealand	2,289	7,224	2,710	2,208	2,235	2,495
Norway	1,626	1,820	921	712	1,389	1,367
Nyasaland	1,043	1,005	545	457	1,170	3,382
Rhodesia	43,269	47,188	46,394	30,175	37,718	41,519
St. Helena	5,918	828	183	3,034	7,492	5,366
South West Africa	45,678	55,401	48,679	35,961	54,031	68,425
United Kingdom	100,918	96,289	79,372	90,504	88,181	81,184
United States of America	6,944	5,094	6,659	7,512	9,851	13,040
Zanzibar	481	119	56	44	43	89
Army Money Orders	566,283	19,230	—	—	—	—
TOTAL.....£	839,160	320,060	217,610	189,786	226,317	257,375

* Year 1st April to 31st March.

(iv) *Rates of Commission on Money Orders.*—The rates of commission charged on money orders issued in the Union of South Africa are as follows :—

For payment in the Union of South Africa, South West Africa, and Bechuanaland Protectorate	6d. per unit of £4 or part thereof
For payment in Rhodesia and Mozambique	9d. per unit of £4 or part thereof
For payment elsewhere	1s. per unit of £4 or part thereof

(v) *Cable Money Orders.*—A service exists between the Union of South Africa on the one hand, and the United Kingdom and Mauritius on the other, by which remittances may be cabled to or from money order offices in those countries. The maximum amount of a cable money order is £40 and the charges in the Union are :—

(*a*) The money order commission at oversea rates, viz., 1s. for every £4 or part thereof, and

(*b*) The cost of the telegram of advice at deferred rates (unless the remitter prefers to telegraph at full rates) for telegrams addressed to the country of destination.

11. **Postal Orders.**—British postal orders of all denominations from 6d. to 21s. are issued and paid throughout the Union.

(i) **NUMBER AND VALUE OF POSTAL ORDERS ISSUED AND PAID IN THE UNION, 1912 TO 1924-25.**

YEAR.	POSTAL ORDERS ISSUED.		POSTAL ORDERS PAID.		UNION SHARE OF POUNDAGE ON ISSUES AND REBATE ON ISSUES AND PAYMENTS.
	Number.	Value.	Number.	Value.	
		£		£	£
1912....	3,261,045	2,080,627	2,485,700	1,521,374	21,161
1913....	3,595,255	2,263,831	2,788,167	1,688,024	23,620
1914....	3,458,662	2,156,313	2,795,233	1,669,566	22,585
1915....	3,467,201	2,149,800	2,870,576	1,712,362	22,785
1916....	3,681,262	2,249,173	3,102,906	1,824,122	23,410
1917....	3,565,124	2,106,319	3,140,936	1,791,013	22,766
1918....	3,235,274	1,904,473	2,871,210	1,614,674	20,992
1919–20*	3,347,766	1,974,031	3,002,910	1,707,723	21,354
1920–21*	2,968,770	1,734,692	2,699,544	1,556,597	19,967
1921–22*	2,762,273	1,571,252	2,348,563	1,267,818	18,199
1922–23*	3,015,402	1,569,398	2,603,624	1,274,932	18,637
1923–24*	3,031,874	1,635,796	2,611,703	1,342,053	19,228
1924–25*	3,400,905	1,817,836	2,892,577	1,496,327	21,169

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not availab e.

(ii) RATE OF POUNDAGE CHARGED ON EACH DENOMINATION OF POSTAL ORDER ISSUED.

Denomination.	Poundage.
6d., 1s., 1s. 6d., 2s., 2s. 6d.	1d.
3s., 3s. 6d., 4s., 4s. 6d., 5s., 5s. 6d., 6s., 6s. 6d., 7s., 7s. 6d., 8s., 8s. 6d., 9s., 9s. 6d., 10s., 10s. 6d.	2d.
11s., 11s. 6d., 12s., 12s. 6d., 13s., 13s. 6d., 14s., 14s. 6d., 15s.	3d.
15s. 6d., 16s., 16s. 6d., 17s., 17s. 6d., 18s., 18s. 6d., 19s., 19s. 6d., 20s., 21s.	4d.

12. **Postal Drafts.**—A system of postal drafts is in force by means of which a member of the public can draw upon another at any point in the Union and South West Africa where there is a money order office for any sum up to £10. A *demand* is made by the postmaster, on a date specified by the drawer, upon the person from whom the money is to be collected. If paid, the postmaster issues a receipt and remits the amount collected to the drawer by money order. The Department's fee is 6d. for one demand and 9d. for two. The presentation of a postal draft has the same force and effect as a legal demand, and in any suit or action the production of a dishonoured draft, with the postmaster's report thereon, is taken as evidence of the facts stated in such report, unless the contrary be proved.

POSTAL DRAFTS ISSUED AND COLLECTED, 1912 TO 1924-25.

Year.	Number of Demands.	Number Collected.	Amount Collected.	Fees.
			£	£
1912	13,145	2,832	4,152	403
1913	15,160	3,149	4,342	461
1914	19,259	3,826	5,444	584
1915	15,134	2,881	3,729	454
1916	16,835	2,930	3,629	507
1917	13,068	2,355	3,018	388
1918	11,336	1,981	2,895	335
1919–20*	10,583	1,859	2,793	314
1920–21*	13,381	2,566	3,968	337
1921–22*	14,998	2,809	4,098	455
1922–23*	17,639	3,434	4,543	530
1923–24*	16,525	3,134	3,944	495
1924–25*	17,056	3,137	4,337	510

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not available.

13. **South Africa to England Ocean Mail Service.**—The first ocean mail contract entered into (1876) provided for a regular weekly mail service, the passage between the United Kingdom and Cape Town to be completed in twenty-six days. In 1899 an agreement was concluded between the United Kingdom and the various colonies and states of South Africa for the adoption of a scheme proposed by the Cape Colony Post Office, under which the cost of the ocean mail service was borne proportionately by the participating British and South African Administrations, on the basis of the use made of it by each Administration. The Cape Colony Administration was responsible for the management of the South African ocean mail service on the basis of this agreement up to the date of Union. The present contract with the Union-Castle Mail Steamship Company had force for ten years from the 1st October, 1912, and was extended for a further two years from the 30th September, 1922, subject to a year's notice. The duration of the voyage is 16 days 15 hours in each direction, with the option of a reduction to 16 days on the voyage to Southampton on payment of an additional subsidy. The subsidy paid is £225,000 per annum, of which, however, £27,000 is paid in consideration of the mail steamers commencing and terminating their voyages at Durban instead of Cape Town. The contracting parties, on the basis of user, are the Union, Southern Rhodesia, and the Bechuanaland Protectorate. Great Britain, formerly a contracting party, withdrew on the 30th September, 1924.

Towards the end of 1924 negotiations were commenced as between the Union Government and the Union-Castle Mail Steamship Company, Limited, for a renewal of the mail contract, but owing to a disagreement, chiefly upon the question of freight rates on certain South African produce, the negotiations were temporarily suspended. On resuming early in 1925, the representatives of the Steamship Company informed the Government of their withdrawal

from the agreements reached at the previous meeting, and intimated that they were only prepared to commence discussions *de novo*. The Government, finding its endeavours to reach a settlement abortive, terminated the negotiations. Meanwhile the European mail services continue to be carried out on the basis of the expired contract, subject to one year's notice of termination on either side.

Postal communication is maintained between South Africa and Australia, India, and the Far East by means of private ships as opportunity offers.

(i) AVERAGE AND SHORTEST TIME OCCUPIED IN THE CONVEYANCE OF MAILS BETWEEN CAPETOWN AND ENGLAND, 1913, AND FOR THE YEARS 1921–22 TO 1924–25.

HEADING.	1913.	1921–22.	1922–23.	1923–24.	1924–25.
Average Length of Voyage.	Dys. Hrs. Mns.	Dys. Hrs. Mns.	Dys. Hrs. Mns.	Dys. Hrs. Mns	Dys. Hrs. Mns.
To South Africa.....	16 8 52	16 21 4	16 10 9	16 10 56	16 10 34
From South Africa..	16 12 34	17 0 9	16 13 7	16 14 23	16 11 59
Fastest Voyage.					
To South Africa.....	16 4 50	16 3 50	16 4 55	16 3 26	16 0 36
From South Africa..	16 8 15	15 12 37	16 4 18	16 9 7	16 7 44

NOTE.—No particulars available in respect of the years 1916–19.

(ii) QUANTITY OF MAIL MATTER CONVEYED, 1912 TO 1924-25.

YEAR.	NUMBER OF MAIL BAGS.		NUMBER OF PARCEL RECEPTACLES.	
	To South Africa.	From South Africa.	To South Africa.	From South Africa.
1912.....	95,406	35,373	22,340	2,650
1913.....	94,623	34,257	22,711	2,490
1914.....	87,413	28,235	17,224	1,997
1915.....	75,211	27,680	22,682	2,149
1916.....	70,224	26,559	29,050	2,394
1917.....	58,501	19,742	33,669	2,698
1918.....	54,563	18,152	58,257	5,845
1919–20*.....	66,277	25,116	40,655	3,911
1920–21*.....	87,027	25,406	49,818	5,880
1921–22*.....	94,672	28,270	54,255	4,791

	To South Africa.		From South Africa.		To South Africa.		From South Africa.	
	Mail Steamers.	Private Ships.	Mail Steamers.	Private Ships.	Mail Steamers.	Private Ships.	Mail Steamers.	Private Ships.
1922–23*.....	105,271	5,011	29,515	4,228	56,540	10,272	4,411	2,071
1923–24*.....	116,312	5,739	32,630	4,545	60,496	13,428	3,983	2,101
1924–25*.....	124,018	6,688	35,997	4,912	65,371	16,224	4,265	1,663

* Year 1st April to 31st March.

14. **Experimental Air Mail Service Between Cape Town and Durban.**—On the recommendation of the Civil Air Board, the Government inaugurated an experimental Air Mail Service between Cape Town and Durban, which was operated for a period of 3½ months, i.e. from 2nd March to the 16th June, 1925, inclusive.

In coming to this decision, which met with the unanimous approval of the Press of the country, the Government felt that there were certain centres in the Union between which an Air Mail Service would be justified as a public utility, and it was desirous of making a practical demonstration in order to—

(*a*) prove the reliability and advantages of air transport;

(*b*) ascertain to what extent the public would support such a facility;

(*c*) obtain valuable statistical information respecting civil aviation in South Africa.

The existing means of communication do not permit of Durban's replying to its overseas letters the same week as received, unless the telegraph is resorted to, but the air mail enabled a reply to be dispatched the same week, thus effecting a saving of seven days.

The service, which was operated by the Union Air Force under the direction of Colonel Sir H. A. van Ryneveld, K.B.E., D.S.O., M.C., was run weekly in each direction in conjunction with the European Mail.

The initial trip was a conspicuous success. The Overseas Air Mail from the "Windsor Castle" arrived at the Wynberg aerodrome at 7.30 a.m., and five minutes later two aeroplanes left for Oudtshoorn, the first relay station, with 35 mail bags weighing 496½ lb. Owing to a following wind, the trip was completed 2 hours 40 minutes ahead of schedule time, and by 4.39 p.m. the air mail had been sorted into private boxes at Durban.

The route was originally fixed as Cape Town, Mossel Bay, Port Elizabeth, East London, and Durban, but owing to the prevalence of fog at Mossel Bay during the trial flights, it was necessary to abandon this station for an inland station at Oudtshoorn in order to ensure the regularity of the service. Arrangements were made, however, whereby air mail matter for Mossel Bay was delivered from Oudtshoorn by air, when the weather permitted, and there was sufficient mail to justify the journey.

The type of aeroplane employed was the military D.H. 9 machine, which is only capable of carrying 400 lb. of mail matter. In order to attain the utmost efficiency, the route was operated on the relay principle, two machines flying together over each section. A reserve machine was kept at Cape Town and Durban, and two machines were kept at each of the three relay stations, making ten machines in all, with an equal number of pilots.

The number of machines and pilots, however, could be reduced to half by using up-to-date commercial aeroplanes, which, with the same power unit, carry a useful load of considerably more than twice that of the D.H. 9 machines.

The following air mail fees were charged in addition to the ordinary postage:—

Letters—	
Inland	3d. per oz.
Overseas	6d. per oz.
Postcards—	
Inland	1d.
Overseas	3d.
Parcels—	
Inland	6d. per lb.
Overseas	9d. per lb.

Special air mail stamps were printed of the denominations of 1d. (red), 3d. (blue), 6d. (violet), 9d. (green), the ground design being an aeroplane in flight against a lined background.

The following particulars in connexion with the operation of the service are of interest:—

Distances flown during period 2nd March to 16th June, 1925, inclusive—

	Miles.	
Oudtshoorn to Mossel Bay and *vice versa*	1,040	
Cape Town to Durban and *vice versa*	59,210	
Total flown by air mail machines	60,250	(2 machines per trip).
Trial flights prior to the service	11,000	
Extra flights during service	20,000	
Grand Total	91,250	

Number of gallons of petrol consumed	12,562
Number of gallons of oil consumed	1,276 (approx.).
Total weight of mail matter carried	3,456 lb. 12¾ oz.

Weight of letters, postcards, and parcels carried—

Letters	2,030 lb. 10½ oz.
Postcards	67 lb. 4¾ oz.
Parcels	1,358 lb. 13½ oz.

Note.—Post cards and parcels were excluded from the service by the British Post Office.

SUMMARY OF LETTERS, POST CARDS, AND PARCELS CARRIED.

Destination.	Letters.	Post Cards.	Parcels.
Great Britain to South Africa.....	2,320	67	—
South Africa to Great Britain.....	25,624	1,118	98
Cape Town to Durban.....	14,026	2,720	289
Durban to Cape Town.....	15,448	1,604	332
Total.....	57,418	5,509	719

15. **Average Flying Time.**—The average flying time, exclusive of stops, on the Cape Town to Durban trip was 10 hours 12 minutes over the 950 miles; including stops, 14 hours 9 minutes. The average flying time on the down trip—including stops—was 26 hours. No passengers were carried owing to the unsuitability of the military machines for this purpose.

The machines left Durban for Cape Town every Thursday afternoon, staying overnight at East London and completing the journey the next day in time to connect with the mail steamer. When the weather conditions were favourable the Cape Town–Durban trip was completed the same day, otherwise early on the morning of the second day.

The Meteorological Department provided an excellent service, whereby weather reports from thirty-five stations on the route were available to the pilots. This information gave the pilots a choice of two routes over certain sections of the airway when the weather was unfavourable. There is no doubt that the success of the service is largely due to the excellent work of the meteorologists, who voluntarily gave their services in the furtherance of civil aviation.

The various municipalities on the route loyally assisted in providing suitable aerodrome sites and in clearing and marking suitable landing grounds where necessary.

In addition to the five regular air mail stations and the Mossel Bay aerodrome, thirty-two emergency landing grounds were established and marked during the operation of service.

The scheme was given the widest publicity through the Press and by means of an illustrated pamphlet. In consequence the revenue derived from mail matter posted in South Africa exceeded expectations, but the support from overseas, doubtless owing to the tentative nature of the service, fell far short of what was anticipated.

Notwithstanding a month of abnormally bad weather in March, the air mail throughout the three and a half months period was operated with an efficiency of 100 per cent. This fine achievement, which considerably impressed the South African public, was due to the highly efficient organization of the Air Directorate and to the pilots themselves, who were imbued with a fine spirit of determination to get through no matter how bad the weather might be.

The service was discontinued on the 16th June, chiefly owing to the unsuitability of the military machines for commercial work, and to the fact that the pilots were being deprived of their military training.

The question of the development of civil aviation by private enterprise is receiving the closest attention of the Minister of Posts and Telegraphs and the Air Board.

§ 2. Telegraphs.

1. **First Lines Constructed and Development of Service.**—The beginning of telegraph construction in South Africa was in April, 1860, when a line between Cape Town and Simonstown was opened for traffic by the Cape of Good Hope Telegraph Company (Ltd.), and in 1864 a line from Cape Town to Grahamstown was completed. On the 1st July, 1873, the lines of the company were transferred to the control of the Government. In Natal, under an Act of 1863, the Government was empowered to grant a concession to a company for the construction of telegraphs, and in 1874, when the Government obtained possession of the company's lines, only one connection existed, i.e. between Durban and Pietermaritzburg, a distance of about fifty-one miles. In 1876 the line from Cape Town to the north was extended to Kimberley, and in 1879 the Cape Colony and Natal were connected telegraphically, establishing in the following year, by means of the East Coast cable, a connection between Cape Town and Europe. In 1879 telegraph offices were opened at Pretoria and Standerton, in the Transvaal; in 1885 an office was established at Barberton, and in 1886 and 1887 offices were opened along the Witwatersrand.

The telegraph lines now spread over the whole of the Union and extend northwards to the Belgian Congo, Kenya, and Uganda, westwards to South West Africa, and eastwards to Mozambique.

2. **Statistics of Working.**—The following table gives particulars regarding the mileage of line, mileage of wire, number of offices, and number of telegrams dealt with in the Union during a series of years :—

PARTICULARS AS TO WORKING OF UNION TELEGRAPHS, 1912 TO 1924-25.

Year.	Mileage of Line.	Mileage of Wire.	Number of Offices.	Telegrams dealt with.*		Cash Revenue.	Value of Government Traffic.	Total Capital Expenditure to End of Year (000's omitted).
				Number (000's omitted).	Value.			
					£	£	£	£
1912...	15,236	56,860	1,460	5,629	398,252	372,222	45,093	1,153
1913...	14,517	48,011	1,575	5,864	415,238	375,738	48,820	1,234
1914...	15,021	50,352	1,602	5,999	456,303	356,739	87,834	1,225
1915...	16,053	54,256	1,656	6,166	468,563	386,701	103,998	1,250
1916...	16,036	54,031	1,695	5,693	478,672	388,770	83,902	1,262
1917...	15,991	53,785	1,703	6,175	436,429	349,100	87,329	1,271
1918...	15,951	53,850	1,730	6,620	467,085	409,490	71,047	1,274
1919–20†	12,482	43,938	1,781	7,646	529,360	475,231	67,843	1,283
1920–21†	—	—	1,857	6,995	552,255	529,518	53,435	1,315
1921–22†	9,348‡	41,415§	1,921	6,091	526,319	495,936	46,798	1,346
1922–23†	9,335	41,932	1,931	5,520	475,435	457,007	37,451	1,382
1923–24†	9,347	40,696	2,103	5,381	467,883	433,101	39,141	1,442
1924–25†	5,143‖	37,232	2,422	5,453	454,383	468,271	922¶	1,179

* Including radio messages and cablegrams, but excluding railway service messages handed in at telegraph offices worked by the Railway Administration.
† Year 1st April to 31st March. Separate figures for first three months of 1919 not available.
‡ Decrease due to revision of statistics relative to routes on railway property.
§ Decrease due to wires now forming part of superimposed circuits.
‖ Decrease due to re-allocation of routes between Telegraphs and Telephones.
¶ Union Government telegrams paid for from 1st April, 1924; the amount of £922 represents the value of free Imperial Government telegrams.

3. **Rates for Transmission of Telegrams.**—The following are the present rates for transmission of telegrams :—

For the Union of South Africa, South-West Africa, and the districts of Lourenco Marques, Gaza, and Inhambane.. } 1s. 3d. for the first 12 words or portion thereof and 1d. for every additional word.

For transmission from Cape Town, Durban, East London, and Port Elizabeth by wireless telegraphy to ships at sea } 11d. per word.

4. **Wireless Telegraphy.**—(i) *Existing Facilities.*—Wireless stations have been established by the Department at Slangkop and Port Elizabeth (Cape) and Durban (Natal). The normal range of the Durban station is 300 miles by day and 1,000 miles by night, whilst the higher power installation at Slangkop has a range of 450 miles by day and 1,500 miles by night. These are the guaranteed ranges, but are greatly exceeded at night by both stations. Continuous attendance is provided at the telegraph offices at Cape Town and King William's Town, and arrangements have been made at the principal ports for summoning a telegraph official in case of emergency. The ports from which succour can be sent to distressed vessels are therefore in communication with the wireless stations at all times. A short-range wireless station has also been established at East London.

(ii) *Projected High-Power Station.*—In September, 1922, the Union Government entered into an agreement with the Marconi's Wireless Telegraph Company, Ltd. (England), for the erection of a high-power wireless station capable of direct communication with the United Kingdom. This agreement, together with a supplementary agreement made in March, 1923, was ratified by Parliament in terms of Act No. 11 of 1923, the schedule to which, containing the text of the agreement, was summarized in the sixth issue of this *Year Book.*

PARTICULARS OF WORKING OF WIRELESS STATIONS, 1912 TO 1924-25.

Year.	Number of Messages.			Number of Words.			Value of Messages (Amount Accruing to Union Government).
	Outwards.	Inwards.	Total.	Outwards.	Inwards.	Total.	
							£
1912.....	2,314	4,361	6,675	26,118	41,796	67,914	1,981
1913.....	2,474	3,554	6,028	28,992	39,590	68,582	2,000
1914.....	1,597	2,701	4,298	19,012	32,878	51,890	1,514
1915.....	419	1,232	1,651	5,905	16,635	22,540	658
1916.....	489	1,947	2,436	9,011	30,179	39,190	1,143
1917.....	71	553	624	1,290	7,943	9,233	268
1918.....	41	196	237	730	3,098	3,828	112
1919–20*.....	2,264	7,556	9,820	37,119	98,289	135,408	3,949
1920–21*.....	3,396	8,727	12,123	44,381	110,072	154,453	4,505
1921–22*.....	3,758	7,662	11,420	89,166	96,674	185,840	4,286
1922–23*.....	5,460	8,828	14,288	126,294	108,297	234,591	4,498
1923–24*.....	5,366	8,737	14,103	125,663	106,158	231,821	4,146
1924–25*.....	4,455	7,605	12,060	124,640	85,544	210,184	3,564

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not available.

5. **Cable Service.**—The cables connecting South Africa with Great Britain, Australia, South America, India, and the Far East are owned by the Eastern Telegraph and its associated companies. There are five principal routes :—

(1) To the United Kingdom via St. Helena and St. Vincent.
(2) To Australia and the Far East via Cocos.
(3) To the United Kingdom via the West Coast station serving the Gold Coast, etc.
(4) To the United Kingdom and India via East Coast stations.
(5) To South America via Ascension and St. Vincent.

A new agreement with the Eastern Telegraph Company to run for a period of 25 years from 1st January, 1920, has been completed.

§ 3. Telephones.

1. **First Exchange and Development of Service.**—In 1882 the first telephone exchange in South Africa was opened at Port Elizabeth, followed in 1884 by the opening of a similar exchange at Cape Town. In quick succession exchanges were established at all the principal towns throughout the Cape Colony, Natal, Transvaal, and Orange Free State, until, at the 31st of March, 1925, there were 897 exchanges in existence in the Union. The largest exchange system is situated at Johannesburg, where 11,278 subscribers' lines and 496 public call offices are in use. Automatic exchanges have been established at Waterkloof (Pretoria), Camps Bay (Cape Town), Overport (Durban), Port Elizabeth, and Parkview and Rosebank (Johannesburg). The Pietermaritzburg exchange system is at present being converted to automatic. Trunk line communication for distances of approximately 500 miles has long been established, and the introduction of " repeaters " has rendered possible trunk speech between Cape Town and Johannesburg and Pretoria.* Repeaters are also in use to facilitate public speech between Johannesburg and Durban, and their installation at an early date at Bethlehem, to place the maize-growing areas of the Orange Free State in telephonic communication with Durban, is contemplated.

2. **Farm Telephone Lines.**—The Department of Posts and Telegraphs, recognising the desirability in the interests of agricultural development of the greatest possible expansion of the farm telephone system, prepared revised conditions and reduced rates for this class of service, and, assisted by a special financial appropriation of £300,000 (to be spread over two years), launched an intensive campaign of farm line development on the 1st of April, 1924. The revised conditions called for the active co-operation of the farmers in the supply of rough labour and road transport in connexion with the erection of their lines and their willingness to undertake the responsibility for the removal of ordinary line faults. The response by the farming community to the Departmentis canvass was instant and widespread, and by the end of the year the Department had completed the erection, during the twelve months, of 2,199 miles of farm telephone line serving 1,392 farmers. At the 31st of March, 1925, there was a total of 6,770 miles of farm telephone line in the Union, serving in all 3,669 farmers.

* The service was made available officially to the public on the 12th April, 1926.

3. **Statistics of Working.**—The following tables give particulars of the operation of the telephone services for a series of years :—

(i) **PARTICULARS AS TO TELEPHONE SERVICES, 1912 TO 1924-25.**

Year.	Mileage of Wire (including Spare Wire).	Number of Exchanges.	Number of Public Call Offices.	Number of Instruments in Use.	Number of Subscribers.	Approximate Number of Calls (000's omitted).	Number of Instruments per 100 of European Population.
1912*.....	62,997	222	822	21,993	14,793	37,000	1·72
1913*.....	83,075	300	1,309	26,257	17,664	50,022	2·06
1914*.....	97,948	400	1,763	29,400	19,870	57,400	2·30
1915*.....	107,946	417	1,923	32,144	21,625	62,077	2·52
1916*.....	115,474	422	2,038	35,463	22,844	77,386	2·78
1917*.....	124,502	437	2,151	36,846	24,876	82,619	2·51
1918*.....	127,178	452	2,180	38,396	26,286	93,110	2·98
1919*.....	128,604	461	2,246	42,419	29,447	98,643	2·87
1920†.....	132,726	468	2,242	43,022	30,069	98,910	2·86
1921†.....	140,889	549	2,346	48,362	33,662	98,910	3·16
1922†.....	158,731	583	2,656	51,849	35,891	100,785	3·12
1923†.....	168,610	648	3,076	55,704	41,302	106,265	3·60
1924†.....	207,538	764	3,462	60,187	44,682	113,342	3·88
1925†.....	230,883	897	4,097	65,950	49,003	121,992	4·03

* 31st December. † 31st March.

(ii) **FINANCIAL PARTICULARS OF TELEPHONE SERVICES, 1912 TO 1924-25.**

Year.	Cash Revenue.	Value of Government Traffic.	Total Capital Expenditure to End of Year (000's omitted).
	£	£	£
1912.....	235,642	23,325	1,406
1913.....	238,610	28,000	1,674
1914.....	278,730	35,114	1,864
1915.....	316,498	37,121	2,003
1916.....	357,980	41,270	2,106
1917.....	404,994	52,520	2,210
1918.....	443,715	59,943	2,272
1919–20*.....	523,641	51,439	2,534
1920–21*.....	682,431	53,030	3,007
1921–22*.....	735,667	60,036	3,403
1922–23*.....	799,590	67,012	3,902
1923–24*.....	893,231	68,042	4,471
1924–25*.....	1,049,192	167†	5,108

* Year 1st April to 31st March. Separate particulars for first three months of 1919 not available.
† Union Government traffic paid for from 1st April, 1924 ; the amount of £167 represents the value of free Imperial Government services.

4. **Wireless Telephony.**—In view of the development of wireless telephony, regulations dealing with the subject of broadcasting, and also with the question of wireless experimenting, were published in August, 1923. Under these the Postmaster-General is empowered to grant licences, under certain conditions, for the establishment of a service of broadcasting wireless telephony, as well as for the installation of receiving-sets by listeners, who are required to enter into a contract with broadcasters licensed in particular areas. Receiving-set licences are charged for at the rate of 5s. per annum, and in addition prescribed charges are payable to the broadcaster. The regulations also make provision for the control and licensing of amateur wireless experimenting.

The opening on the 1st July, 1924, of a broadcasting station at Johannesburg, and the subsequent establishment of similar stations at Cape Town, Durban, and other centres stimulated the public interest in wireless telephony, as shown by the marked increase in the number of wireless licences issued.

In 1926 Radio Act No. 20 was passed by the legislative. This Act makes provision for the control of radio activities within the Union, and places the exclusive privilege of transmitting and receiving radio-telegrams under control of the Postmaster-General, who is empowered to issue licences under prescribed conditions to persons operating wireless stations, to experimenters, broadcasters, and listeners. A schedule of fees is attached to the Act, and, *inter alia*, provides for the maximum fee of £1. 15s., in respect of a listener's licence for a private residence.

§ 4. Savings Bank.

1. **Conduct of Savings Bank.**—Savings Banks are conducted by the Department at Cape Town (for the Cape of Good Hope), Pretoria (for the Transvaal, Orange Free State, Natal, and certain Northern and Eastern Cape offices). Deposits of one shilling, or any multiple of one shilling, are received, subject to a limit of £200 net in any one year ending 31st March, and £1,000 in all, excluding interest. Interest at the rate of 3½ per cent. per annum is allowed. Deposits are received at all money order offices. Any depositor may, in addition, invest in Savings Bank Certificates of £100 each up to £1,000. Interest on certificates at 4 per cent. per annum is credited to the depositor's ordinary account half-yearly.

2. **Savings Bank Transactions.**—Particulars of Post Office Savings Bank transactions will be found in Chapter XXIII.

§ 5. Civil Aviation.

The *Union Aviation Act* No. 16 of 1923, which was passed to enable effect to be given to the International Air Navigation Convention and to make provision for the control, regulation and encouragement of flying within the Union, came into force on the 1st July, 1924. The Act provides for the adoption of the Convention, and empowers (*a*) the issue of proclamations to give effect to the Convention; (*b*) the ratification of and giving effect to amendments; and (*c*) the application within the Union of any of the provisions of the Convention. Section 3 provides for the making of regulations, which cover, *inter alia*, the licensing and certificating of personnel, machines and aerodromes, the registration of aircraft, the safety and security of persons and property, the holding of accident inquiries, etc.

Section 4 provides for the appointment of a Civil Air Board to advise the Minister. Administrative matters are dealt with in the Department of the Minister of Posts and Telegraphs, and any technical assistance and advice is rendered by the Union Air Directorate

The Act gives powers of control, after issue of special proclamation, to provide for a state of war or great national emergency.

Provision is made (*a*) for the establishment and maintenance, out of any moneys appropriated by Parliament for the purpose, of aerodromes and road approaches thereto; (*b*) for the acquisition of land for this purpose, and (*c*) for land being expropriated for aerodromes, as though the acquisition were a defence purpose in terms of Section 87 of the *Defence Act* (No. 13 of 1912). Aerodromes used for public purposes must be approved or licensed.

Actions for *trespass or nuisance* against aircraft for flying over private property are barred, provided reasonable height and the rules of flight are observed, but it is laid down that damages may be recoverable for *loss or damage* by the aircraft or by articles falling from the aircraft. The Act provides for the investigation of accidents to aircraft, and empowers the detention of aircraft for breach of law or regulations.

The provisions of the Act are made applicable to all aircraft except those used for military, naval, or Government purposes, but they may be applied to Government aircraft or aerodromes by proclamation.

The administration of the Act has been assigned to the Minister of Posts and Telegraphs. In terms of Section 4 of the Act, a *Civil Air Board* has been appointed for a period of three years, with effect from 1st July, 1924, with the following personnel:—

*H. J. Lenton, Postmaster-General, Chairman;
Brig.-General A. J. E. Brink, D.T.D., D.S.O., Chief of the General Staff;
Col. Sir H. A. van Ryneveld, K.B.E., D.S.O., M.C., Director of Air Services;
Major A. M. Miller, D.S.O., M.L.A.;
G. Owen Smith, I.S.O., Commissioner of Customs and Excise;
Lt.-Col. F. R. Collins, D.S.O., Chief Mechanical Engineer, South African Railways;
W. C. van der Sterr, Director of Trigonometrical Survey; and
P. L. Lindup, Secretary.

Air Navigation Regulations for the Union, framed substantially on the lines of the British Regulations and approved by the Air Board, have been promulgated with effect from 1st July, 1924.

§6. Bureau of National Information.

Early in the financial year 1925–26 the Government decided to establish a Bureau of National Information, under the control of the Department of Posts and Telegraphs, for the purpose of collecting and disseminating information affecting the national welfare, market prices, etc. Bulletins containing this information are broadcast daily by the wireless broadcasting stations, and are telegraphed to all post offices, where they are exhibited for the information of the public.

* From 23rd April, 1926, *vice* Lt.-Col. E. A. Sturman, C.B.E., superannuated.

CHAPTER XXII.

STATE FINANCE.

A. GENERAL FINANCIAL SYSTEM OF THE UNION GOVERNMENT.

1. **Statutory Provisions.**—The financial provisions of the Constitution are to be found in Sections 117 to 133 of the *South Africa Act.* In terms of Section 117, all revenues from whatever source arising vest in the Governor-General-in-Council. The section creates a Railway and Harbour Fund, into which are paid all revenues from the administration of the railways, ports, and harbours, while further provision is made as follows: "There shall also be formed a Consolidated Revenue Fund, into which shall be paid all other revenues raised or received by the Governor-General-in-Council, and such fund shall be appropriated by Parliament for the purposes of the Union in the manner prescribed by this Act and subject to the charges imposed thereby." Further provisions relating to the financial system of the Union are those contained in the *Exchequer and Audit Act* of 1911, as amended by Act No. 31 of 1916 and Act No. 37 of 1922, and the *Public Debt Commissioners Act,* 1911, as amended by Sections 6 and 7 of Act No. 38 of 1921 and Act No. 50 of 1926. The raising of loans is governed by the *General Loans Consolidation and Amendment Act* No. 22 of 1917, as amended by Act No. 20 of 1919.

2. **Consolidated Revenue Fund.**—Under the present financial arrangements which conform to the provisions of the *South Africa Act,* as more particularly defined in the *Exchequer and Audit Act,* 1911, all revenues, except those of the Railway and Harbour Administration, are carried to the Consolidated Revenue Fund. This fund comprises the Revenue Account and the Loan Account, the former being credited with all moneys received from revenue proper, the latter with moneys derived from the raising of loans, from repayment of loans, or from the alienation of fixed property and such other moneys as Parliament may direct to be paid to that account. The charges upon the Revenue and Loan Accounts are provided for by annual appropriation Acts, and, subject to Section 26 of the *Exchequer and Audit Act,* it is only under the authority of such an Act that a withdrawal from the Consolidated Revenue Fund can take place. The section referred to provides that withdrawals to meet unforeseen and necessary expenditure not provided for in an appropriation Act or expenditure in excess of an amount so provided may be made under special warrant of the Governor-General up to an amount not exceeding in the whole £300,000.

3. **Railway and Harbour Fund.**—The revenues of the Railway and Harbour Administration are carried to a fund styled the Railway and Harbour Fund, and are appropriated for purposes of the Administration by annual appropriation Acts. A similar provision to that described above exists for meeting unforeseen or excess charges on the fund within certain limits. The Railway and Harbour Fund embraces a Capital Account and a Revenue Account, and the funds to meet capital expenditure are in the main provided by the Treasury, from the proceeds of loans raised, by way of loan to the Administration at rates of interest corresponding to those paid by the Treasury (see Chapter XX).

4. **Public Debt Commissioners.**—All trust moneys, e.g. Sinking Fund, Pension Fund, Guardians' Fund, and Post Office Savings Bank moneys, coming into the hands of the Government or the Railway and Harbour Administration, and funds held by Provincial Administrations are handed over for investment and management to the Public Debt Commissioners. The Public Debt Commissioners consist of the Minister of Finance as Chairman, *ex officio,* a member of the Railway Board, and one other member. The powers and functions of the Commissioners are governed by the *Public Debt Commissioners Act,* 1911, as amended by Sections 6 and 7 of Act No. 38 of 1921 and the *Public Debt Commissioners*

(*Amendment*) *Act*, No. 50 of 1926. The principal Act had provided that the surplus of revenue over ordinary expenditure in each year shall be paid to the Commissioners and applied by them in redemption of debt.

A very important, and (for the maintenance of South Africa's credit in the money market) very salutary, new departure is made by Act No. 50 of 1926. The above provision in regard to surplus revenue is withdrawn, and provision is made for the creation of a *General Sinking Fund*. Into this fund is to be paid from the Consolidated Revenue Account, the sum of £650,000 per annum for forty years from the commencement of the financial year 1927–28. The object of this measure is to extinguish the non-productive debt of the Union, including the cost of public works and buildings. The Treasury computes this debt to be £55,000,000 (including £12,000,000 worth of public buildings, etc.). The annual accumulation of £650,000 at 4½ per cent. interest will, in forty years, redeem 69½ millions of debt. Ample provision is therefore made in regard to the existing debt.

As regards future unproductive debt, the proceeds of certain mining leases, appropriated annually to loan funds, are estimated to be more than sufficient to cover the outlay on ordinary capital expenditure. Assuming, therefore, that during the next forty years unproductive capital expenditure is not increased through extraordinary causes (e.g. war or an abnormal series of deficits on revenue account), the General Sinking Fund will do very much more than extinguish the unproductive debt.

Provision is made in the Act for the continuance of the payment of interest by the Consolidated Revenue Account during the full period of forty years on any General Sinking Fund moneys, utilized for the cancellation of stock, due to be redeemed in a shorter period. The same procedure will be followed in respect of particular sinking funds which are fed by contributions from the General Sinking Fund.

5. **Audit.**—The audit of all the accounts of the Union Government, including those of the Railway and Harbour Administration, is conducted by the Controller and Auditor General, who reports annually thereon to Parliament. The appointment, powers, and duties of this officer are prescribed in the *Exchequer and Audit Act* of 1911 and the amending Acts of 1916 and 1922.

6. **Financial Relations between the Union Government and the Provinces.**—The powers of the Provinces are in the main defined in Section 85 of the *South Africa Act* and the *Financial Relations Act* of 1913. This latter Act has been extended and modified from time to time by Acts No. 9 of 1917, No. 6 of 1920, No. 5 of 1921, No. 5 of 1922, and No. 21 of 1924, but in the 1925 Session of Parliament an Act was passed which introduced several radical changes in the provincial position, to which detailed reference is made later. The most important duties of the Provinces are the control and administration of Education, *other than higher education* (i.e. up to University matriculation standard), Hospitals and Poor Relief, Roads and Bridges, and Game and Fish Preservation. From the date of the constitution of the Union until April, 1913, when the *Financial Relations Act* came into operation, the whole of the funds required by the Provinces were provided by grants from the Union Exchequer. The Act of 1913 was based on the Majority Report of the Financial Relations Commission, which was composed of a representative of each Province, with the Right Honourable Sir G. H. Murray, C.G.B., as Chairman. Broadly, it provided for—

(*a*) a subsidy from Union funds of one-half of the ordinary annual expenditure of the Province, subject to certain limitations as regards the annual increase in such expenditure;

(*b*) the assignment to the Province, without power of legislation in regard thereto, of the revenues derived from (i) transfer duty, (ii) liquor licences, (iii) native pass fees in Transvaal labour districts;

(*c*) the transfer to the Province, with power of legislation in regard thereto, of trading and professional licences (with certain exceptions), education fees, hospital fees, etc.;

(*d*) a special subsidy of £100,000 in each case to Natal and the Orange Free State.

As the Trading and Liquor Licence revenues in Natal were collected by the municipalities within their areas, provision was made for a special annual grant to that Province in lieu of the yield of such licence revenues to the municipalities in any year. (Under Act No. 5 of 1922 the grant was limited to £30,000 and restricted to the five years ending 31st March, 1927). As regards the capital expenditure of the Provinces, the Act provided that it should be met from funds provided by the Union Treasury upon loan at such rate of interest and redeemable within such period as may be fixed. The interest and redemption charges were to rank as ordinary expenditure of the Province for purposes of the Union subsidy. The Provinces are not permitted to borrow from any source other than the Union Treasury for capital expenditure.

In September, 1922, a Commission was appointed to inquire into and report upon the finances of the several Provinces, with the following personnel:—Messrs. W. D. Baxter

(Chairman), J. H. Hofmeyr, M.A., H. S. Scott, B.A., and Alex. Aiken, and their main findings and recommendations were that :—

(1) Payment of subsidy to the Provinces on the £1 for £1 basis was thoroughly unsound and should be abandoned.
(2) The Provincial Councils should have complete control, both legislative and administrative, of sources of revenue which were detailed and no others ; that these sources of revenue should be clearly defined and limited and should be enumerated in an Act of Parliament as their only sources of revenue.
(3) Trade and occupational licences should be uniform throughout the Union, and the rates fixed by the Union Parliament.
(4) To supplement the revenue from the sources enumerated, the Union Government should pay a subsidy to the Provinces which should take the form of a grant-in-aid of education, its amount to be determined by the number of pupils in average attendance ;
(5) The deficits of the Provinces outstanding at the date of the coming into operation of the Commission's proposed scheme should be wiped out by means of loans from the Union Government to be repaid in ten years.
(6) *Capital Expenditure.*—The existing system of financing the capital expenditure of the Provinces should be continued.
(7) School Boards in the Cape Province should be deprived of the power of raising loans.
(8) *General.*—
    (i) In the interests of the economical administration of the country as a whole there should be more co-operation between Union Government Departments and the Provincial Administrations.
    (ii) The most essential factor in economical administration is the development of local authorities with financial responsibility.
    (iii) Local authorities should be established with definite financial responsibilities in respect of education, hospitals, and roads.
    (iv) Local authorities should raise funds mainly by means of rates on immovable property.

Arising out of the report of the Commission, a further Commission was appointed in August, 1923, to investigate the matter of the State's liability for the cost of education and certain other matters in connexion with the education of European children. Its conclusion was that the Union Government should assume the whole of the reasonable cost of education up to the age of 15.

Beyond funding the deficits as recommended at (5) above, and making certain minor changes, no action was taken by the Government (under General Smuts) in regard to any of the Commission's recommendations. A new Government came into office in June, 1924, under the premiership of General Hertzog, and shortly afterwards a Conference of provincial representatives was called by the Minister of Finance (Hon. N. C. Havenga) at Durban to discuss the vexed question of financial relations.

The results achieved at the Conference have been embodied in legislation enacted during the 1925 Session of Parliament.

Briefly the changes in financial relations which have been effected as from 1st April, 1925, are as follows :—

(1) The annual subsidy to the Provinces is based on the number of European pupils in average attendance at primary and secondary schools, the grants per head being :—Cape and Natal, £14 ; Transvaal, £16. 7s. 6d. ; Orange Free State, £15. 8s. ; though in respect of the first 30,000 pupils in each Province the grant is £16. 7s. 6d. per head.

    There are other grants in respect of the various other educational activities of the Provinces, e.g. training of teachers, native education, etc.

    A special additional subsidy of £75,000 each is given to Natal and the Orange Free State.

(2) The general power of the Provinces derived under Section 85 of the *South Africa Act* to impose direct taxation, which gave rise to a large number of test cases in the courts on the validity of taxing ordinances, has been withdrawn, and the sources from which alone they may raise revenue and legislate in regard thereto are set out in the following schedule :—
    (*a*) Hospital fees and fees received in respect of such education as is within the jurisdiction of a Provincial Council.
    (*b*) Licences required for dogs outside urban areas ; licences to take, catch, or kill game, fish, or other animals ; licences to sell game ; licences to pick or sell wild flowers.
    (*c*) Licences to own or drive any motor vehicle or other vehicle propelled by mechanical power.

(*d*) Wheel tax or tax on vehicles, including motor and other mechanical vehicles.
(*e*) Amusements or entertainment tax.
(*f*) Auction dues.
(*g*) Licensing of totalizators and the imposition on the licences of a duty in respect of the takings thereof; and licences, taxes, and fees in connexion with the control, regulation, and restriction of horse and other racing, *betting and wagering, and the dissemination of information as to betting and wagering.*
(*h*) Taxes on persons other than companies and on the incomes of persons other than companies subject to certain limits.
(*i*) A tax on companies other than mutual life insurance companies.
(*k*) Tax on the ownership of immovable property.
(*l*) Licences in respect of the importation for sale within the Province of goods from beyond the borders of the Union, subject to a maximum licence duty of £310 in respect of any one importer in the Province concerned.
(*m*) Receipts of a miscellaneous nature connected with matters entrusted to a Province.

(3) The power to fix the licence fees in respect of trades, professions, and occupations has been taken over by the Union. The proceeds derived from this source will, however, be transferred to the Province, together with the proceeds of Transfer Duty, Liquor Licences, and Native Pass Fees.
(4) The power of the Natal municipalities to impose certain trading licences has been taken away and the grant in lieu to Natal provided under the 1913 Act has been abolished, as the revenue from licences will accrue to the Province in the ordinary way under the arrangement set out in paragraph (3).

B. PUBLIC REVENUE AND EXPENDITURE OF THE UNION.

§ 1. General Summary.

1. **Revenue and Expenditure of States Prior to 1910.**—The following table gives particulars regarding the revenue and expenditure of the States now forming the Union from 1881 to 1910. Railway revenue and expenditure have been excluded from the figures which have been adjusted to uniform fiscal periods (1st April to 31st March). Details of individual years will be found in the sixth and previous issues of this *Year Book* :—

REVENUE AND EXPENDITURE (EXCLUDING RAILWAY REVENUE AND EXPENDITURE) OF STATES NOW FORMING THE UNION, 1881 TO 1910 (ADJUSTED TO UNIFORM FISCAL PERIODS).

Period. (1st April to 31st March.)	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
		(*a*) REVENUE.			
	£	£	£	£	£
Average—					
1881–82 to 1884–85	2,307,700	451,699	174,599	234,945	3,168,943
1885–86 to 1889–90	2,157,954	636,823	774,798	222,721	3,792,296
1890–91 to 1894–95	2,580,848	698,161	1,606,544	328,437	5,213,990
1895–96 to 1899–00	3,470,700	1,080,550	†4,284,803	370,101	†9,052,792
1900–01 to 1904–05	4,860,905	1,577,294	‡4,689,948	535,230	‡12,353,641
*1905–06 to 1910...	4,293,377	1,660,785	5,208,037	832,136	11,994,335
		(*b*) EXPENDITURE.			
	£	£	£	£	£
Average—					
1881–82 to 1884–85	2,737,851	477,659	170,184	221,686	3,607,380
1885–86 to 1889–90	2,632,085	644,968	692,357	196,347	4,165,757
1890–91 to 1894–95	3,318,724	886,291	1,478,797	345,901	6,029,713
1895–96 to 1899–00	4,593,545	1,401,938	†4,150,568	399,402	†10,508,599
1900–01 to 1904–05	5,976,846	2,186,032	‡4,122,676	516,713	‡13,993,521
*1905–06 to 1910...	5,589,949	2,437,500	4,841,204	800,997	13,669,650

* To 31st May, 1910.
† Average for years 1895–96 to 1898–99. ‡ Average for years 1902–03 to 1904–05.

2. **Revenue and Expenditure from 1910.**—The following table shows the total ordinary revenue and expenditure of the Union, including the Provinces. To maintain comparability of the figures the following adjustments to the audited statements have been made :— (i) The revenue of the Union from 1910–11 to 1916–17 excludes receipts from *Bewaarplase* transferred to the Loan Account, and the expenditure of the Union excludes subsidies to the Provincial Councils, and, in the year 1912–13, a contribution of £100,000 to the Miners' Phthisis Compensation Fund, which was a debit against the *Bewaarplase* receipts. (ii) Interest paid by the Railways and Harbours on Loan Capital, which was formerly credited to the Consolidated Revenue Fund, has been credited direct to the Public Debt Commissioners since 1923–24, and has been deducted from both Revenue and Expenditure, and shown separately. Owing to this change the figures are undoubtedly a better guide to the public expenditure of the country. The figures for previous years have been subtracted in all the tables following.

UNION OF SOUTH AFRICA—REVENUE AND EXPENDITURE (INCLUDING PROVINCIAL), 1910–11 TO 1923–24.

Year.	Revenue.			Expenditure.			Interest on Railway Capital.
	Union.	Provincial.	Total.	Union. (Net.)	Provincial.	Total.	
	£	£	£	£	£	£	£
1910–11...	12,042,683	—	12,042,683	8,580,878	2,271,300	10,852,178	2,375,553
1911–12...	14,209,361	—	14,209,361	10,225,709	2,883,567	13,109,276	3,019,057
1912–13...	14,175,835	—	14,175,835	10,536,802	3,662,987	14,199,789	3,116,685
1913–14...	12,606,150	1,289,190	13,895,340	11,100,686	3,324,136	14,424,822	3,198,926
1914–15...	10,967,245	1,058,085	12,025,330	10,671,855	3,346,142	14,017,997	3,297,852
1915–16...	13,167,515	1,134,566	14,302,081	10,699,969	3,365,705	14,065.674	3,388,882
1916–17...	14,940,879	1,423,766	16,364,645	12,032,122	3,708,684	15,740,806	3,467,737
1917–18...	16,011,448	1,723,049	17,734,497	12,701,615	4,255.051	16,956,666	3,646,149
1918–19...	18,311,880	2,093,753	20,405,633	14,694,569	5,212,710	19,907,279	3,599,149
1919–20...	23,179,314	3,405,134	26,584,448	17,065,307	6,388,052	23,453,359	3,706,643
1920–21...	25,748,096	3,596,766	29,344,862	21,669,628	8,417,256	30,086,884	3,923,090
1921–22...	24,550,624	3,738,150	28,288,774	21,075,379	8,819,282	29,894,661	4,333,646
1922–23...	22,674,916	3,561,443	26,236,359	19,505,957	8,506,312	28,012,269	4,559,599
1923–24 ..	24,252,888	3,918,413	28,171,301	19,720,265	9,175,751	28,896,016	4,632,993

§ 2. Revenue of the Union.

1. **Ordinary Revenue of the Union.**—The total ordinary revenue of the Union from the date of the establishment of the Union is given according to financial years (1st April to 31st March) in the subjoined table, together with the revenue per head of the total population and per head of the European population only. The ordinary revenue is taken to exclude railway and harbour revenue, and (from 1st April, 1913) collections of revenue on behalf of Provincial Administrations. Receipts from *bewaarplase*, a source of revenue resulting from certain Government ownership rights in respect of gold mines in the Transvaal, have been excluded for the years up to 1920–21 and for the year 1923–24, as revenue under this head had been transferred to Loans Account for these years.

ORDINARY REVENUE OF THE UNION, AND REVENUE PER HEAD OF THE POPULATION, 1910-11 TO 1924-25.

Period.	Customs Revenue.	Mining Revenue.†	Other Revenue.	Total Revenue.	Per Head of Population.	Per Head of European Population.
	£	£	£	£	£ s. d.	£ s. d.
*1910–11 to 1914–15 (average)	4,271,042	2,014,766	9,516,061	15,801,869	2 11 9	12 2 1
1915–16 to 1919–20 (average)	5,370,200	1,724,143	13,589,576	20,683,919	3 2 5	14 9 6
1920–21	9,015,875	1,886,871	18,773,440	29,676,186	4 6 10	19 15 9
1921–22	5,292,786	1,184,734	22,406,750	28,884,270	4 3 2	18 19 5
1922–23	5,761,563	1,473,858	19,999,094	27,234,515	3 17 1	17 10 0
1923–24	6,670,851	2,109,725	15,472,312	24,252,888‡	4 0 6§	18 5 8§
1924–25	7,340,502	1,341,800	16,653,241	25,335,543	4 3 0§	18 16 0§

* From 1st June, 1910. Particulars of individual years from 1910–11 to 1919–20 will be found in the sixth issue of this *Year Book*.
† A complete statement of Union revenue derived from mining will be found below.
‡ See footnote No. 3 of following table.
§ Railway interest included for comparative purposes.

2. **Sources of Revenue.**—The ordinary revenue of the Union is derived from (*a*) Receipts from Customs and Excise, (*b*) Collections by the Inland Revenue Department under various heads, including income tax payments, taxation of mines, stamp, transfer, and other duties, and Native taxes; and (*c*) Revenue earned by the Postal, Telegraph, and Telephone services of the Union. The revenue receipts under the main heads are given below for six financial years (1st April to 31st March).

HEADS OF REVENUE OF THE UNION, 1918-19 TO 1923-24.

Description of Revenue.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Customs	5,991,733	6,288,524	9,015,875	5,292,786	5,761,563	6,670,851
Excise	1,241,898	1,648,159	1,300,013	1,711,194	1,783,404	1,945,744
Mining Revenue	1,007,547*	2,324,955*	1,886,871*	1,184,734	1,473,858	2,109,726*
Bewaarplase	†	†	†	95,840	120,295	†
Licences—Trading and Professional	106,124	126,095	134,151	135,703	150,855	117,740
Licences—Other						
Stamp Duties and Fees	674,045	958,399	1,017,844	874,764	866,374	827,441
Income Tax	4,397,817	4,824,285	4,854,578	6,965,269	5,205,038	5,408,555
Excess Profits Tax	—	1,215,996	1,206,332	1,823,678	385,648	27,317
Estate and Succession Duty	224,601	282,506	358,179	275,554	286,089	441,618
Native Taxes	818,332	827,527	826,864	829,008	858,819	898,035
Pass Fees	43,040	42,168	34,895	29,946	33,723	37,802
Land Revenue	151,225	147,245	144,419	158,849	158,672	173,578
Forest Revenue	89,819	117,256	107,220	80,429	68,986	77,397
Rents of Government Property	108,321	138,338	196,784	213,035	168,573	186,176
Sales of Crown Land	†	†	†	113,895	100,960	†
Interest	602,376	773,739	771,563	781,185	998,365	1,068,422
Departmental Receipts	543,712	814,037	724,369	739,565	724,987	581,913
Fines and Forfeitures	169,015	195,581	231,267	219,880	250,562	255,248
Miscellaneous	85,630	84,877	151,733	131,553	280,171	245,915
Postal	1,176,810	1,370,755	1,573,190	1,662,154	1,741,377	1,853,078
Telegraph and Telephone	879,835	998,872	1,211,949	1,231,603	1,256,597	1,326,332
TOTAL £	18,311,880	23,179,314	25,748,096	24,550,624	22,674,916	24,252,888
Interest on Railways and Harbours Loan Capital	3,599,149	3,706,643	3,928,090	4,333,646	4,559,599	4,632,993‡
TOTAL £	21,911,029	26,885,957	29,676,186	28,884,270	27,234,515	28,885,881

* Excluding portion of Gold Mine Leases, which are credited to Loan Account for these years.
† Credited to Loan Account.
‡ Interest on Railways and Harbours Loan Capital credited direct to Public Debt Commissioners in 1923–24.

3. **Customs Revenue.**—The subjoined table gives particulars of revenue derived from customs duties levied in the Union during a series of *calendar* years. Further details as to the customs of the Union are given in Chapter XVIII.

CUSTOMS REVENUE OF THE UNION, 1919 TO 1924.

Class.	1919.	1920.	1921.	1922.	1923.	1924.
	£	£	£	£	£	£
Foodstuffs of Animal Origin..	60,962	116,848	56,798	66,376	128,593	156,450
Foodstuffs of Vegetable Origin.	459,460	562,308	506,687	639,797	847,760	919,833
Non-Alcoholic Beverages.....	3,676	3,440	1,706	1,233	1,579	1,434
Spirits and Alcoholic Liquors..	534,190	844,374	814,193	794,668	716,813	753,313
Tobacco.....	78,377	96,971	60,557	70,801	53,722	48,579
Live Animals.....	29	41	51	12	10	22
Animal Substances (not Foodstuffs).....	218	273	159	90	144	392
Vegetable Substances (not Foodstuffs).....	1,382	1,536	1,788	3,096	6,287	5,492
Apparel and Textiles.....	2,013,697	3,295,950	1,602,154	1,703,507	1,811,225	1,863,492
Oils, Fats, and Waxes.....	142,777	193,344	157,417	163,903	209,595	306,228
Paints and Varnishes.....	8,482	9,350	4,000	5,543	34,970	52,186
Stones and Minerals.....	167	114	587	652	6,027	6,449
Specie.....	—	—	—	—	—	—
Metals (unmanufactured).....	3	37	71	12	126	176
Metals (partly manufactured)..	19,416	14,599	10,325	6,802	9,432	11,570
Metals (manufactured).....	478,552	998,561	583,545	437,512	653,822	949,092
Leather and Indiarubber.....	315,588	541,109	224,142	209,115	355,165	475,990
Wood and Wicker.....	80,906	281,621	144,142	145,832	173,007	175,888
Earthenware, Cements, China, Glass, and Stoneware.....	70,849	193,016	126,494	128,678	126,590	134,484
Paper and Stationery.....	81,030	127,095	97,757	65,351	95,007	98,875
Jewellery, Timepieces, and Fancy Goods.....	101,143	214,413	101,218	118,736	90,697	105,082
Optical, Surgical, and Scientific Instruments.....	18	38	43	36	150	790
Drugs, Chemicals, and Fertilizers	74,999	92,569	63,284	62,213	73,673	74,202
Miscellaneous.....	1,467,542	2,393,475	1,217,982	1,406,744	1,394,959	1,490,239
TOTAL.....£	5,993,463	9,981,082	5,775,106	6,030,709	6,789,353	7,630,258

4. **Excise Revenue.**—The subjoined table gives particulars of revenue from Excise in the Union during six financial years (1st April to 31st March) :—

EXCISE REVENUE OF THE UNION, 1918–19 TO 1923–24.

Description.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Spirits.....	675,291	880,296	612,863	686,024	637,493	713,160
Beer.....	158,705	249,247	249,915	242,793	214,930	222,959
Cigarettes.....	256,505	323,384	286,593	289,552	750,738	734,882
Tobacco.....	—	—	—	364,357		
Sugar.....	123,356	162,923	119,109	96,190	143,488	134,211
Matches.....	26,041	31,137	30,340	28,607	30,237	60,670
Patent Medicines.....	—	—	—	—	—	72,922
Playing Cards.....	1,676	858	835	3,671	6,518	6,940
Miscellaneous.....	324	314	358			
TOTAL..... £	1,241,898	1,648,159	1,300,013	1,711,194	1,783,404	1,945,744

5. **Revenue from Mining.**—Particulars of the sources of revenue from mining in the Union are given hereunder for six financial years (1st April to 31st March). A special War levy of £500,000 on the profits of gold mining was imposed under the *Mining Taxation Amendment Act*, 1915. The first instalment (2½ per cent. on the profits) yielded in the financial year 1915–16 the sum of £301,186, and the balance was paid in the financial year 1916–17.

MINING REVENUE OF THE UNION, 1918-19 TO 1923–24.

Description.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Gold Mines—						
Income Tax	766,311	943,296	1,189,956	1,107,948	834,933	1,236,434
State Ownership (Lease Revenue)—						
*Credited to Income Tax	99,904	127,850	169,485	169,593	138,131	284,774
Credited to Revenue	—	—	—	724,372	605,371	525,000
Credited to Loan	291,152	502,446	731,002	—	—	392,829
Bewaarplase	119,055	128,021	119,790	95,840	120,295	79,362
Diamond Mines—						
Income Tax	388,182	593,337	538,751	115,569	*Dr.* 65,456	201,245
Export Duty	330,015	1,319,149	810,463	142,559	587,824	723,449
Registration Fees	6,014	—	—	—	—	—
State Ownership	402,018	727,857	799,797	54,213	13,899	602,049
Coal Mines—						
Income Tax	56,750	86,685	93,764	114,887	88,476	78,332
State Ownership	—	—	—	—	—	—
Other Mines—						
Income Tax	26,894	21,828	9,369	958	3,255	8,554
State Ownership	10,431	3,082	4,332	630	807	130
Licences and Mynpag Dues	259,069	274,867	272,279	262,960	265,959	259,098
TOTAL £	2,755,795	4,728,418	4,738,988	2,789,529	2,593,494	4,391,256

* In terms of Section 3 (*d*) of Act No. 22 of 1917.

6. **Income Tax Act.**—The collection of income tax is now governed by the *Income Tax Act*, No. 40 of 1925, as amended by Act No. 36 of 1926. The Act of 1925 consolidated and amended the previous Act of 1917 as amended by the subsequent Acts of 1919, 1920, and 1921. The principal change introduced is the repeal of the dividend tax, the yield of taxation being maintained by a corresponding increase in the rates of normal tax chargeable upon companies.

Under the Act of 1926 the primary abatement allowable to married persons has been raised from £300 to £400.

The taxes imposed for the year 1926 are :—

A. Normal Tax. B. Supertax.

Returns under the Act (as now amended) are required as follows :—

A. In respect of normal tax from—

(*a*) every married person, or representative of such person, whose income for the year of assessment exceeded £400 ;

(*b*) every unmarried person, or representative of such person, whose income for the year of assessment exceeded £300 ;

(*c*) the public officer of every company, the income of which for the year of assessment exceeded £300 ;

(*d*) every person to whom a form of return is issued, irrespective of the income of that person for the year of assessment in question.

The general provisions of the principal Act (as amended from time to time) apply each year to the determination of the taxable amount upon which the tax is to be levied and

the collection of the amount payable in respect of that taxable amount, but the actual rates to be levied are fixed each year by Parliament in respect of the year of assessment ending on the 30th June of that year. Provision is further made that the rates so fixed shall be applicable to any *interim* assessment made in respect of the following year of assessment, subject to adjustment when the next annual determination of rates is made.

(i) *Rates.*—The rates for the year of assessment ended 30th June, 1926, are :—

A. NORMAL TAX.—In respect of each taxable amount (as defined below)—

(*a*) in the case of gold and diamond mining companies, for each pound of taxable amount, *three shillings ;*

(*b*) in the case of all other companies, for each pound of taxable amount, *two shillings and sixpence ;*

(*c*) in the case of persons other than companies, for each pound of taxable amount, *one shilling* and as many *two-thousandths of a penny* as there are pounds in that amount, subject to a maximum rate of *two shillings* in every such pound.

These rates are subject to the provisos—

(1) that when any portion of the taxable amount of a company is due to the inclusion in its taxable income of any debenture disallowed as a deduction under Section 13 (*a*) of the Act, the rate of tax in respect of that portion of the taxable amount is *two shillings* for each pound of that portion ; and

(2) that when any portion of the taxable amount of any company is derived from or relates to the business of life assurance, including the sale of annuities, the rate of tax in respect of that portion is limited to *one shilling and sixpence* for each pound of that portion.

B. SUPERTAX.—In respect of each taxable amount (as defined below)—
for each pound of such taxable amount, *one shilling* and as many *five-hundredths of one penny* as there are pounds in that amount, subject to a maximum rate of *five shillings* in every such pound.

(ii) *Taxable Amounts.*—The *Income Tax Act* of 1925 (as amended by Act No. 36 of 1926) defines the taxable amounts in respect of each tax as follows :—

A. NORMAL TAX.—The taxable amount of any income is the amount remaining after deducting from the taxable income such of the abatements set out below as are applicable. (NOTE.—A taxable income is the amount remaining after deducting from gross income, that is, all receipts other than those of a capital nature, all exempted amounts, and all admissible deductions other than abatements.)

Abatements—

I. In the case of any person other than a company :—

(1) (*a*) a sum of—

(i) £400 in the case of every person to whom paragraph (2) (*a*) below is applicable ;

(ii) £300 in the case of every person to whom paragraph (2) (*b*) below is applicable,

as the case may be ;

(*b*) any sum not exceeding £50 paid by the taxpayer during the period in respect of which a return is made as premiums upon policies under which he, his wife, or his minor children * is or are insured against death, accident, or sickness ;

(*c*) any fees or subscriptions, not exceeding £10 in the aggregate, paid by the taxpayer to any benefit or friendly society during any period in respect of which a return is made ;

(*d*) a sum of £60 for each child* ;

(*e*) a sum of £30 for each dependant of the taxpayer.

"Dependant" means—

(i) any person incapacitated by old age, infirmity, or any other reason satisfactory to the Commissioner from maintaining himself ; and

(ii) any child (other than the child* or step-child of such taxpayer) to whose maintenance during the year of assessment the taxpayer has contributed, whether in cash or otherwise, to an amount of not less than £30.

* "Children" includes step-children and children adopted under the *Children's Protection Act*, No. 25 of 1923. Such children must have been maintained by the taxpayer in the year of assessment, and include only those who were under eighteen years of age on the last day of the year of assessment, or would have been under eighteen years had they lived.

(2) The total of the allowances applicable to any person is subject to reduction as follows :—

(*a*) In the case of every person who—

(i) during any portion of the period in respect of which the assessment is made was married ; or

(ii) during the whole of the period in respect of which such assessment is made, was widowed or divorced, but maintained a child * during any portion of that period,

the reduction shall be by one pound for every completed ten pounds by which the taxable income of such person exceeds six hundred pounds :

Provided that in the case of any married person who was separated under a judicial order or written agreement throughout the period in respect of which the assessment is made or lived apart from his spouse throughout that period and did not contribute to her support and did not maintain during any portion of that period a child*, the reduction of the total of the allowances applicable shall be as follows :—

(*b*) In the case of all persons to whom paragraph (*a*) of this sub-section does not apply, the reduction shall be by one pound for every completed pound by which the taxable income of any such persons exceeds three hundred pounds.

II. In the case of companies the abatement is £300, subject to reduction as provided in paragraph (2) (*b*) above.

III. In any case in which the period assessed is less than one year, the total of the allowances applicable other than insurance premiums and fees or subscriptions to benefit or friendly societies *actually paid* during the period assessed is proportionately reduced.

Exemptions.—Section 10 of the *Income Tax Act* of 1925 provides for certain exemptions, e.g. revenues of the Government of the Union and Provincial Administrations and other local authorities of the Union, revenues of foreign States, revenues of the Imperial Government and of the Governments of the British Dominions, Colonies, and Possessions (other than revenues derived by the last-named Governments from any trade carried on within the Union) ; receipts of building and friendly societies ; receipts of ecclesiastical, charitable, and educational institutions of a public character ; receipts (other than income from investments) of mutual life assurance societies and companies and associations dealing only with their own members ; war pensions and miners' phthisis awards ; interest on tax-free loans, on deposits in the Post Office Savings Bank, and on Union Loan Certificates ; interest on Government loans when received by persons non-resident in the Union ; salaries paid to the Governor-General and his staff, and the representatives of foreign and other British Governments (other than Union residents not merely stationed in the Union for the purpose of carrying out such duties) ; dividend and debenture interest received from companies chargeable with or exempt from the normal tax and profits of mining exempted from taxation under the Gold Law of the Transvaal.

B. SUPERTAX.—The taxable amount for supertax purposes is the amount remaining of the income subject to supertax after allowing an abatement of £2,500, diminished by one pound for every pound by which the income subject to supertax exceeds £2,500. The abatement thus ceases to exist where the income subject to supertax amounts to £5,000 or upwards.

The income subject to supertax is an aggregate of—

(*a*) the taxable income of the taxpayer as determined for the same year of assessment for normal tax purposes ;

(*b*) any dividends or debenture interest derived from sources within the Union which were excluded in determining that taxable income ;

(*c*) any bonus shares or debentures or other securities awarded to the taxpayer during the year of assessment as the capitalization of the profits of any company in which he was a shareholder ;

(*d*) any amount allocated to the taxpayer by the Commissioner, representing his share of the undistributed profit of a private company.

Deductions.—From the aggregate so determined may be deducted expenditure other than capital expenditure connected with the dividends, debenture interest, or bonus shares included in the aggregate, and any loss assessed for normal tax purposes.

* See note on page 760.

(iii) *Summary of Assessments—All Income Tax.*—The subjoined table gives the number and value of assessments of income tax under the various Acts named.

(*a*) NUMBER OF ASSESSMENTS FOR NORMAL TAX, SUPERTAX, AND DIVIDEND TAX MADE SINCE THE INCEPTION OF UNION INCOME TAX.

Act Imposing Taxation.	Normal Tax.			Supertax.	Dividend Tax.	Grand Total.
	Individuals.	Companies.	Total.	Individuals.	Companies.	
	No.	No.	No.	No.	No.	No.
Act No. 28 of 1914.....	5,542	615	6,157	—	—	6,157
Act No. 23 of 1915.....	44,115	944	45,059	—	—	45,059
Act No. 35 of 1916.....	47,173	1,128	48,301	1,140	—	49,441
Act No. 41 of 1917.....	53,614	1,349	54,963	1,663	334	56,960
Act No. 26 of 1918.....	66,206	1,469	67,675	2,216	385	70,276
Act No. 39 of 1919	79,560	1,553	81,113	2,382	403	83,898
Act No. 45 of 1920.....	63,012	1,894	64,906	3,338	430	68,674
Act No. 29 of 1921.....	106,719	2,266	108,985	2,512	266	111,763
Act No. 23 of 1922.....	82,432	1,937	84,369	1,922	222	86,513
Act No. 19 of 1923.....	81,556	2,093	83,649	2,021	212	85,882
Act No. 26 of 1924.....	84,273	2,187	86,460	2,344	214	89,018
TOTAL NO.....	714,202	17,435	731,637	19,538	2,466	753,641

(*b*) VALUE OF ASSESSMENTS FOR NORMAL TAX, SUPERTAX, AND DIVIDEND TAX, MADE SINCE THE INCEPTION OF UNION INCOME TAX.

Act Imposing Taxation.	Normal Tax.			Supertax.	Dividend Tax.	Grand Total.
	Individuals.	Companies.	Total.	Individuals.	Companies.	
	£	£	£	£	£	£
Act No. 28 of 1914....	178,076	321,711	499,787	—	—	499,787
Act No. 23 of 1915....	842,741	526,098	1,368,839	—	—	1,368,839
Act No. 35 of 1916....	1,030,886	788,550	1,819,436	335,857	—	2,155,293
Act No. 41 of 1917....	1,347,651	1,084,827	2,432,478	572,184	866,823	3,871,485
Act No. 26 of 1918....	1,805,890	1,116,666	2,922,556	846,490	944,633	4,713,679
Act No. 39 of 1919....	1,924,502	1,170,075	3,094,577	709,109	1,090,569	4,894,255
Act No. 45 of 1920....	2,172,305	1,519,377	3,691,682	987,376	1,410,982	6,090,040
Act No. 29 of 1921....	2,130,126	1,729,668	3,859,794	1,066,780	816,825	5,743,399
Act No. 23 of 1922....	1,612,409	1,129,402	2,741,811	772,086	565,912	4,079,809
Act No. 19 of 1923....	1,635,660	1,525,874	3,161,534	776,044	973,812	4,911,390
Act No. 26 of 1924....	1,754,277	1,886,527	3,640,804	1,023,213	944,023	5,608,040
TOTAL.....£	16,434,523	12,798,775	29,233,298	7,089,139	7,613,579	43,936,016

(iv) *Assessments of Income Tax (Normal).*—The table given hereunder shows the number of payers of income tax as assessed during the year ended 30th June, 1924, the amount of taxed incomes, and of tax paid in the Union and each Province :—

NORMAL TAX.—NUMBER OF ASSESSMENTS, AMOUNTS OF TAXED INCOMES, AND AMOUNT OF TAX IN THE UNION AND EACH PROVINCE, IN RESPECT OF THE YEAR ENDED 30th JUNE, 1924.

Province.	Number of Taxpayers.			Amount of Taxed Incomes.			Amount of Tax Payable.		
	Individuals.	Companies.	Total.	Individuals.	Companies.	Total.	Individuals.	Companies.	Total.
	No.	No.	No.	£	£	£	£	£	£
Cape of Good Hope.....	27,064	661	27,725	20,289,066	6,897,621	27,186,687	646,936	520,787	1,167,723
Natal.....	12,393	311	12,704	8,764,404	2,562,619	11,327,023	273,059	196,756	469,815
Transvaal...	36,676	1,152	37,828	24,088,991	15,085,604	39,174,595	683,177	1,121,603	1,804,780
Orange Free State.....	8,140	63	8,203	5,596,450	616,009	6,212,459	151,105	47,381	198,486
UNION....	84,273	2,187	86,460	58,738,911	25,161,853	83,900,764	1,754,277	1,886,527	3,640,804

(v) *Assessments of Normal Tax Classified.*—The tables given hereunder show the classifications of assessments (*a*) according to the amount of taxed incomes, (*b*) according to sources of income, (*c*) according to sources of income in respect of individuals, and (*d*) according to districts, where the total amount of tax paid in the district exceeded £10,000 :—

(*a*) NORMAL TAX.—ASSESSMENTS CLASSIFIED ACCORDING TO AMOUNT OF TAXED INCOMES, YEAR ENDED 30th JUNE, 1923.*

Scale of Taxed Income.	Number of Taxpayers.			Amount of Taxed Incomes.			Amount of Tax Payable.		
	Individuals.	Companies.	Total.	Individuals.	Companies.	Total.	Individuals.	Companies.	Total.
£ £	No.	No.	No.	£	£	£	£	£	£
301– 400	20,363	97	20,460	7,214,138	33,911	7,248,049	62,531	1,989	64,520
401– 500	18,581	77	18,658	8,341,070	34,895	8,375,965	118,207	2,132	120,339
501– 600	12,199	60	12,259	6,679,373	32,804	6,712,177	125,493	2,019	127,512
601– 700	7,211	57	7,268	4,661,399	37,027	4,698,426	106,947	2,297	109,244
701– 800	4,591	53	4,644	3,431,130	39,412	3,470,542	93,067	2,402	95,469
801– 900	3,022	48	3,070	2,567,183	40,837	2,608,020	79,251	2,489	81,740
901– 1,000	2,258	49	2,307	2,146,048	46,771	2,192,819	71,951	2,802	74,753
1,001– 1,250	3,267	85	3,352	3,641,199	94,449	3,735,648	135,694	5,815	141,509
1,251– 1,500	1,866	60	1,926	2,552,540	82,245	2,634,785	105,228	5,305	110,533
1,501– 2,000	2,013	109	2,122	3,467,630	192,380	3,660,010	156,575	11,643	168,218
2,001– 2,500	1,003	96	1,099	2,234,134	214,526	2,448,660	109,338	13,371	122,709
2,501– 3,000	554	57	611	1,507,149	157,055	1,664,204	78,052	9,757	87,809
3,001– 5,000	660	114	774	2,469,403	442,653	2,912,056	139,406	28,945	168,351
5,001–10,000	249	150	399	1,622,066	1,091,457	2,713,523	103,662	76,731	180,393
10,001–20,000	42	88	130	547,093	1,252,658	1,799,751	42,677	96,414	139,091
Over £20,000	10	126	136	325,728	16,074,376	16,400,104	32,615	1,232,120	1,264,735
TOTAL....	77,889	1,326	79,215	53,407,283	19,867,456	73,274,739	1,560,694	1,496,231	3,056,925

* Compiled to 30th June, 1924.

(*b*) NORMAL TAX.—TAXED INCOMES FOR THE UNION, CLASSIFIED ACCORDING TO SOURCES, YEARS ENDED 30th JUNE, 1915–24 INCLUSIVE.

Year of Collection.	Source of Income. Trade and Manufacture.	Banking and Insurance.	Mining.	Employment and Professions.	Farming.	Investments.	Miscellaneous.	Total.
Individuals.								
	£	£	£	£	£	£	£	£
1914–15	3,680,177	—	—	3,139,029	582,097	2,185,434	481,669	10,068,406
1915–16	7,289,479	—	15,509	13,181,446	1,765,966	4,146,435	276,374	26,675,209
1916–17	9,158,249	—	24,866	13,732,193	1,796,178	4,223,313	60,991	28,995,790
1917–18	11,392,301	—	145,140	15,859,300	3,826,556	4,489,139	21,855	35,734,291
1918–19	14,207,869	—	89,885	19,840,066	5,412,228	4,719,907	10,806	44,280,761
1919–20	13,622,769	—	265,025	25,722,725	6,732,979	5,197,633	44,384	51,585,515
1920–21	14,645,076	—	379,928	22,591,017	8,049,042	5,458,708	50,237	51,174,008
1921–22	11,323,820	—	132,517	45,302,791†	2,885,337	6,404,203	19,844	66,068,512
1922–23	9,047,397	—	85,376	33,762,635	1,658,682	7,544,578	6,171	52,104,839
1923–24	9,960,679	—	128,268	31,805,822	3,361,529	8,212,125	8,110	53,476,533
Companies.								
1914–15	2,635,497	1,524,452	919,031	—	226,898	518,124	164,228	5,988,230
1915–16	3,332,040	1,307,142	689,926	—	332,711	541,054	7,789	6,210,662
1916–17	5,880,128	1,649,296	837,168	—	453,894	628,061	—	9,448,547
1917–18	6,755,275	1,494,826	6,666,384*	—	418,805	637,046	16,122	15,988,458
1918–19	8,636,277	2,205,483	10,010,482	—	517,314	555,781	—	21,925,337
1919–20	7,417,204	1,981,656	11,962,819	—	86,961	646,773	1,662	22,097,075
1920–21	7,004,441	2,097,882	15,455,912	—	536 637	750,934	1,051	25,846,857
1921–22	8,542,180	2,089,091	10,677,847	—	1,153,340	644,661	13,611	23,120,730
1922–23	6,274,251	1,744,962	6,156,533	—	32,266	683,622	—	14,891,634
1923–24	6,904,127	2,022,026	10,248,624	—	76,123	691,586	222	19,942,708
Total.								
1914–15	6,315,674	1,524,452	919,031	3,139,029	808,995	2,703,558	645,897	16,056,636
1915–16	10,621,519	1,307,142	705,435	13,181,446	2,098,677	4,687,489	284,163	32,885,871
1916–17	15,038,377	1,649,296	862,034	13,732,193	2,250,072	4,851,374	60,991	38,444,337
1917–18	18,147,576	1,494,826	*6,811,524	15,859,300	4,245,361	5,126,185	37,977	51,722,749
1918–19	22,844,146	2,205,483	10,100,367	19,840,066	5,929,542	5,275,688	10,806	66,206,098
1919–20	21,039,973	1,981,656	12,227,844	25,722,725	6,819,940	5,844,406	46,046	73,682,590
1920–21	21,649,517	2,097,882	15,835,840	22,591,017	8,585,679	6,209,642	51,288	77,020,865
1921–22	19,866,000	2,089,091	10,810,364	45,302,791	4,038,677	7,048,864	33,455	89,189,242
1922–23	15,321,648	1,744,962	6,241,909	33,762,635	1,690,948	8,228,200	6,171	66,996,473
1923–24	16,864,806	2,022,026	10,376,892	31,805,822	3,437,652	8,903,711	8,332	73,419,241

* Profits from Gold and Diamond Mining assessed for first time under *Income Tax Act*.
† Increase almost entirely accounted for by reduction of abatement from £500 to £300 in case of married persons.

(c) NORMAL TAX.—TAXED INCOMES OF INDIVIDUALS, CLASSIFIED IN PROVINCES, ACCORDING TO SOURCES, IN RESPECT OF YEAR ENDED 30th JUNE, 1923.*

Source of Income.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	TOTAL.
	£	£	£	£	£
Trade (excepting Liquor Trade)	3,781,187	1,353,457	3,299,644	646,591	9,080,879
Liquor Trade	387,594	194,480	247,448	50,278	879,800
Mining	74,207	4,143	43,551	6,367	128,268
Legal Profession	522,266	178,146	518,687	168,503	1,387,602
Medical Profession	360,450	130,826	322,702	98,873	912,851
Other Professions	399,009	158,387	404,698	49,242	1,011,336
Public Service	2,530,449	1,212,208	4,389,317	691,761	8,823,735
Other Employment	5,412,476	2,730,071	10,749,114	778,637	19,670,298
Farming	1,277,041	278,137	493,402	1,312,949	3,361,529
Rents	1,152,737	556,452	1,272,605	252,650	3,234,444
Interest	2,789,051	744,005	1,041,893	402,732	4,977,681
Other than above	1,945	258	5,398	509	8,110
TOTAL.....£	18,688,412	7,540,570	22,788,459	4,459,092	53,476,533

* Excluding losses in one trade set off against income from other sources.

Particulars are given hereunder as to the number of assessments of individuals, amount of taxed incomes, and amount of tax paid in districts in which more than £10,000 was paid in Income Taxes, during the year ended 30th June, 1923:—

(d) NORMAL TAX.—NUMBER OF ASSESSMENTS OF INDIVIDUALS, AMOUNT OF TAXED INCOMES, AND AMOUNT OF TAX PAID IN DISTRICTS IN WHICH MORE THAN £10,000 WAS PAID IN INCOME TAXES, DURING THE YEAR ENDED 30th JUNE, 1924.

District.	Number of Assessments.	Amount of Taxed Incomes.	Amount of Tax Payable.
	No.	£	£
Cape of Good Hope—			
Albany (Grahamstown)	508	391,674	12,358
Cape Town (including Wynberg)	9,426	7,371,234	254,241
East London	1,472	1,058,320	32,408
Kimberley	1,275	923,174	30,014
King William's Town	420	329,550	11,553
Port Elizabeth	2,305	1,826,806	62,583
Natal—			
Durban	6,100	4,445,857	145,752
Pietermaritzburg	1,646	1,186,979	37,474
Transvaal—			
Benoni	1,626	899,816	18,905
Boksburg	1,041	568,477	11,619
Germiston	1,655	920,495	20,659
Johannesburg	16,471	11,530,580	355,391
Krugersdorp	1,685	952,358	20,630
Pretoria	5,820	3,628,017	93,655
Orange Free State—			
Bloemfontein	1,931	1,231,891	32,444

(vi) *Supertax and Dividend Tax.*—The tables hereunder give particulars as to the number of assessments and tax paid (*a*) as Supertax and (*b*) as Dividend Tax, the taxes being assessed as for the year ended June, 1923, and collected or compiled up to 30th June, 1924.

(*a*) SUPERTAX.—NUMBER OF ASSESSMENTS, AMOUNT OF SUPERTAXABLE INCOMES, AND AMOUNT OF SUPERTAX PAYABLE IN THE UNION AND IN EACH PROVINCE, YEAR ENDED 30th JUNE, 1923.

Province.	Number of Taxpayers.	Amount of Supertaxable Incomes.	Amount of Supertax Payable.
		£	£
Cape of Good Hope	820	3,799,490	327,643
Natal	308	1,545,569	146,334
Transvaal	743	3,288,657	251,531
Orange Free State	83	322,921	18,493
UNION	1,954	8,956,637	744,001

(*b*) DIVIDEND TAX.—PARTICULARS OF COLLECTIONS FOR THE PERIODS ENDED 30th JUNE, 1923 AND 1924, IN RESPECT OF THE TAX YEARS ENDED 30th JUNE, 1922 AND 1923.

Source of Income.	Tax Collection, Year 1922–23.			Tax Collection, Year 1923–24.		
	Amount of Dividends on which Tax is paid.	Rate of Tax per £1.	Amount of Tax.	Amount of Dividends on which Tax is paid.	Rate of Tax per £1.	Amount of Tax.
	£	s. d.	£	£	s. d	£
Gold Mining Companies	5,170,482	1 6	387,786	8,526,307	1 6	639,473
Diamond Mining Companies	772,851*	1 6	57,964*	1,242,760	1 6	93,207
Other Companies—Mining and Industrial	4,271,210	1 0	213,561	5,041,440	1 0	252,072
TOTAL	8,668,841	—	543,383	14,810,507	—	984,752

* Debit.

7. **Death and Succession Duties.**—Act No. 29 of 1922 makes provision for a duty to be levied in respect of the estate of every person dying on or after 1st July, 1922. From 1st July, 1925, estate duty is charged, under Act No 31 of 1925, at the following rates :—

Dutiable Amount.	Rate per cent.	Dutiable Amount.	Rate per cent.
Up to £2,000	½	£35,000–£40,000	9
£2,000– £3,000	1	£40,000–£45,000	10
£3,000– £7,500	2	£45,000–£50,000	11
£7,500–£10,000	3	£50,000–£55,000	12
£10,000–£15,000	4	£55,000–£60,000	13
£15,000–£20,000	5	£60,000–£65,000	14
£20,000–£25,000	6	£65,000–£70,000	15
£25,000–£30,000	7	£70,000–£75,000	16
£30,000–£35,000	8	£75,000 and over	17

The Act further provides for the levy, in the case of any person becoming entitled to property, of a succession duty as follows:—

Degree of Relationship of Successor to Predecessor.	Rate of duty upon Dutiable Amount of Succession.
	Per cent.
Where the successor is the direct descendant or ascendant of the predecessor	2
Where the successor is the brother or sister of the predecessor	4
Where the successor is the descendant of the brother or sister of the predecessor	6
Where the successor is otherwise related to the predecessor or is a stranger in blood or is an institution	10
Where the successor is married to a person related by blood to the predecessor the rate of duty chargeable shall be determined by the relationship of whichsoever of the two spouses is more nearly related to the predecessor.	

Provision is made for the valuation of the property when the succession consists of limited interests therein, and for the refund of a proportionate amount of the duty paid should the succession lapse and the interest pass to another. The following are exempt from succession duty:—

(*a*) Any succession accruing from any predecessor to his surviving spouse;

(*b*) any succession accruing to any public institution of a charitable, educational, or ecclesiastical nature, or required to be devoted wholly to charitable, educational, or ecclesiastical purposes of a public nature or accruing to a public institution, which has for its purposes the advancement of science or art;

(*c*) any succession accruing to any provincial administration or municipality or other local authority.

The following table shows the amount collected in death duties during each financial year 1918–19 to 1923–24.

DEATH DUTIES COLLECTED DURING THE YEARS 1918–19 TO 1923–24.

Year.	Estate Duty.				Succession Duty.				Total.
	Cape.	Natal.	Transvaal.	Orange Free State.	Cape.	Natal.	Transvaal.	Orange Free State.	
	£	£	£	£	£	£	£	£	£
1918–19...	—	—	78,456	—	119,375	17,212	—	9,558	224,601
1919–20...	—	—	80,906	—	154,396	24,156	—	23,048	282,506
1920–21...	—	—	102,936	—	195,053	30,625	—	29,565	358,179
1921–22...	—	—	90,130	—	145,717	24,231	—	15,476	275,554
1922–23...	2,341	742	71,602	607	167,235	18,653	6,403	18,506	286,089
1923–24...	37,863	30,254	110,238	18,638	138,016	27,512	52,431	26,656	441,608

The number and gross value of the assets, arranged under principal headings, in the estates dealt with under the *Death Duties Act* of 1922, during the financial year ended 31st March, 1924, are given hereunder.

Number of Estates	2,964
Value of—	£
Immovable Property	2,605,759
Money Lent on Mortgage	671,233
Income Due, Book and other Debts	475,602
Stocks, Shares, and Debentures	902,556
Insurance Policies	284,755
Limited Interests in Property	506,326
Cash in Hand and at Bank	814,908
Stock in Trade, Goods, Live Stock, and other Movable Property	570,729
TOTAL VALUE OF ASSETS	£6,831,868

8. **Native Taxes.**—Hut tax is levied on natives in the Cape of Good Hope at 10s. per hut, in Natal at 14s. per hut, and in a small area of the Orange Free State at £1 per hut. In the Transvaal there is a poll tax of £2 levied annually on each adult male native, with a further tax of £2 per wife on every native with more than one wife. Native farm labourers and natives in municipal locations are allowed a reduction of £1 each in respect of their tax liability. In the Orange Free State there is a poll tax of £1 levied annually on each adult coloured person. The subjoined table gives the total amount collected from natives in the various Provinces during the financial year 1923–24.

HUT TAX AND POLL TAX COLLECTIONS, FINANCIAL YEAR 1923–24.

Tax.	Province.				
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
Hut Tax	130,318	231,481	—	—	361,799
Poll Tax	—	—	454,122	82,115	536,237
TOTAL £	130,318	231,481	454,122	82,115	898,036

Under the provisions of the *Natives Taxation and Development Act*, No. 41 of 1925, which consolidated the various pre-Union and Union laws relating to the taxation of natives in the different Provinces, a general tax of one pound (£1) sterling is levied upon every male adult native who is domiciled in the Union, or who has resided in the Union for a period of twelve months, and, in addition, a local tax of 10s. is imposed upon the occupier of every hut or dwelling in a native location in the Union, unless the occupier is the owner of an allotment of land held under quitrent title in the location in which the hut or dwelling is situated.

One-fifth of the general tax, together with any local tax or native quitrent collected in respect of any area not falling within the jurisdiction of certain named councils or boards, is paid into a special account called the "Native Development Account." These amounts are applied to the maintenance, extension, and improvement of educational facilities amongst the natives, and for the further development and advancement of their welfare. The Act has effect as from the 1st January, 1926.

9. **Land Revenue.**—A brief summary of the land revenue system of each Province is given hereunder :—

(a) *Cape Province : Quitrent.*—Quitrent in the Cape Province is payable under numerous Acts. In many cases the Acts only remain in force so far as the provisions might affect the titles granted under such Acts. The principal Acts under which land has been disposed of by Government subject to quitrent are : Act No. 2 of 1860 (repealed), Act No. 14 of 1878 (repealed), and Act No. 15 of 1887 (in force). Generally, the quitrent, which is fixed by contract, is based on the value of the land or purchase price. In many cases the quitrent is fixed by sale at public auction. Owing to the varying system of fixing the quitrent, the rates per morgen, or even a series of rates, are incapable of classification. Anomalous and unaccountable variations exist. In certain areas the quitrent works out at a fraction of a penny per morgen and in other parts at a possible £1 per morgen. Quitrent may be redeemed at 15 or 20 years' purchase (as the case may be). The redemption charge is the purchase price, and the quitrent payable is approximately 5 per cent. interest on such purchase price. Quitrent is payable in advance, in arrear, and at different times throughout the year, according to the terms of grant.

Native quitrents yield approximately £20,000 per year. The minimum quitrent for an allotment is 15s. and the average 30s. per annum.

(b) *Natal : Quitrent.*—The quitrent is fixed in terms of grant according to a rate laid down by Proclamation or according to the value of the land. In some cases it is fixed according to the highest tender or purchase price. Quitrent is redeemable at 15 or 20 years' purchase, and most of the quitrent has been redeemed. On all unoccupied farms

granted under Proclamation of 7th July, 1856, a non-occupation tax of four times the amount of quitrent is imposed. In the districts of Vryheid, Utrecht, and Paulpietersburg (old Transvaal districts) the following land tax is in force (Act No. 31 of 1907) :—

Freehold Farms.—Annual quitrent at the rate of $3\frac{1}{5}$ pence for every 100 morgen or portion thereof.

Quitrent Farms.—Annual quitrent of 1s. 6d. for every 100 morgen or portion thereof.

Erven—Paulpietersburg.—Annual tax of 10s. per erf on alienated erven.

All quitrent is payable at a fixed time, viz., 31st December. In recent years a quitrent has not been imposed in respect of the sale of Government lands.

(c) *Transvaal : Land Tax.*—In the Transvaal a direct land tax on all farms situate in the Province is levied. The rate is fixed according to the extent, and no account is taken of the value of the land. Two forms of tenure exist, viz. :—

Quitrent.—The annual rate is 1s. 6d. per 100 morgen or portion thereof for surveyed farms, and in respect of unsurveyed farms 30s. for a whole farm or portion more than half, and 15s. for a half portion or less.

Freehold.—The annual rate is 10s. for a whole farm not exceeding 3,750 morgen (an additional 2s. 6d. per 100 morgen being paid for any extent in excess of 3,750 morgen) and 5s. for a half farm (which is not more than 1,875 morgen), or for any portion less than half.

The annual tax payable in respect of a portion of a quitrent farm in extent 100 morgen is 1s. 6d., and in respect of the same extent of a freehold farm 5s. If the registered owner is domiciled in foreign parts (i.e. outside the Union) the land tax in respect of quitrent farms is doubled. The tax is due and payable on or before the 1st July of each year. A proportionately large amount of arrear taxes exists. This is due in many instances to the land being derelict, the whereabouts of the owners being unknown.

(d) *Orange Free State : Quitrent.*—This so-called quitrent, established in terms of Chapter LXIX of the Orange Free State Law Book, is a direct land tax payable in respect of every farm in the Province and the rate is 2s. per 100 morgen or portion thereof. The area of unsurveyed farms is estimated according to the report of the Land Commission on original inspection. An additional amount of £5 per annum is payable on each farm belonging to persons resident outside the Union which is not occupied. Quitrent is payable on the 31st December in every year, and if not paid by the 31st March following, a fine equal to the amount in arrear is imposed (section 14 of Chapter LXIX). This provision greatly facilitates collection and consequently there are very few arrear taxes.

(e) *Statistics of Land Revenue.*—The statement hereunder shows the annual amount of land revenue collected from the year 1913–15.

LAND REVENUE COLLECTED IN VARIOUS PROVINCES, 1913–15 TO 1925.

Year Ended 31st March.	Cape.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
Average—					
1913–15	102,291	3,890	18,550	15,575	140,306
1916–20	110,209	3,565	20,160	16,131	150,065
Year—					
1921	105,124	3,044	20,169	16,082	144,419
1922	121,696	3,397	17,846	15,910	158,849
1923	117,829	3,006	21,141	16,695	158,671
1924	134,361	2,960	18,986	17,271	173,578
1925	130,571	3,399	20,045	17,213	171,228

The nature of the imposition in the Transvaal and Orange Free State enforces a complete registration of all owners of land.

Excluding Transfer Duty, which is a tax upon the acquisition of fixed property, the revenue derived directly from land in the Union is approximately 1 per cent. of the total inland revenue.

10. **Postal Revenue.**—Particulars are given below of postal receipts and telegraph and telephone revenue in the Union for six financial years (1st April to 31st March):—

UNION POSTAL REVENUE, FINANCIAL YEARS 1918-19 TO 1923-24.

Description of Revenue.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Postage	912,318	1,074,188	1,298,139	1,402,760	1,459,019	1,521,829
Commission (Money Orders and Postal Orders)	38,330	51,678	34,277	40,627	38,652	39,895
Rents of Private Boxes and Bags	32,716	35,838	43,872	44,786	45,219	45,811
Ocean Mail Service	137,889	141,033	125,201	100,155	123,453	165,486
Miscellaneous Postal Revenue	55,556	68,018	71,701	73,826	75,034	80,057
Telegraphs	417,964	475,231	529,518	495,936	457,007	433,101
Telephones	461,872	523,641	682,431	735,667	799,590	893,231
TOTAL £	2,056,645	2,369,627	2,785,139	2,893,757	2,997,974	3,179,410

11. **Revenue Collected for Provinces.**—Particulars are given below of revenue collected by Departments of the Union Government on behalf of the Provinces, and passed through the account of the Commissioner for Inland Revenue, for a series of financial years (1st April to 31st March).

REVENUE COLLECTED FOR PROVINCES, FINANCIAL YEARS 1919-20 TO 1923-24.

Province.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£
Cape of Good Hope	764,732	933,232	836,292	919,729	941,774
Natal	191,197	205,123	218,327	265,450	280,135
Transvaal	1,656,304	1,599,580	1,781,926	1,428,731	1,579,968
Orange Free State	305,081	312,268	307,691	329,536	359,083
TOTAL £	2,917,314	3,050,203	3,144,236	2,943,446	3,160,960

§ 3. Expenditure of the Union.

1. **Ordinary Expenditure of the Union.**—The subjoined table gives the total expenditure of the Union Government charged against the Consolidated Revenue Fund [excluding, however, subsidies to Provincial Administrations and interest on Railway capital (see pages 756 and 793)], during each financial year (1st April to 31st March) from 1910. Expenditure is also shown (*a*) per head of the total population, and (*b*) per head of the European population only.

ORDINARY EXPENDITURE OF THE UNION GOVERNMENT, AND EXPENDITURE PER HEAD OF THE POPULATION, FINANCIAL YEARS 1911-12 TO 1924-25.

Period.	Public Debt.	Posts, Telegraphs, and Telephones.	General Government.	Total Ordinary Expenditure.	Per Head of Population.	Per Head of European Population.
	£	£	£	£	£ s. d.	£ s. d.
1911-12	1,629,001	1,491,204	7,105,504	10,225,709	1 14 2	7 19 9
1916-17	2,818,283	1,703,016	7,510,823	12,032,122	1 16 9	8 11 4
1920-21	3,387,788	3,344,475	14,937,365	21,669,628	3 3 5	14 8 11
1921-22	3,452,896	3,202,585	14,419,898	21,075,379	3 0 8	13 16 10
1922-23	3,896,111	2,786,758	12,822,788	19,505,957	2 15 3	12 10 8
1923-24	3,952,638	2,734,621	13,033,006	19,720,265	2 15 0	12 9 8
1924-25	3,997,230	2,665,661	13,435,234	20,098,125	2 15 1	12 9 7

2. **Classified Summary of Ordinary Expenditure (Union).**—The subjoined table gives the various classes of ordinary expenditure by the Union Government, and the amount expended (exclusive of Provincial subsidies and interest on Railway capital) for each of six financial years (1st April to 31st March):—

CLASSIFIED ORDINARY EXPENDITURE OF THE UNION (EXCLUSIVE OF PROVINCIAL SERVICES) FOR THE FINANCIAL YEARS 1918-19 TO 1923-24.

Service.‡	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
General Government	1,728,282	2,583,403	3,414,395	3,408,561	3,024,618	3,178,434
Law, Order, and Protection	4,477,618	5,150,690	6,843,429	6,185,668	5,357,880	5,270,506
Higher Education, Science, etc.	181,888	231,686	339,172	320,440	344,442	366,004
Public Health, Medical, Lepers, and Mental Disorders	789,676	733,555	892,297	860,046	760,686	785,933
Lands and Agriculture	1,096,690	1,252,621	1,627,496	1,676,926	1,548,794	1,672,459
Mines and Industries	235,549	294,877	370,576	331,964	317,187	380,879
Public Works	584,351	670,621	812,422	819,742	762,137	775,474
Posts, Telegraphs, and Telephones	2,074,938	2,387,362	3,344,475	3,202,585	2,786,758	2,734,621
Native Affairs	343,210	414,095	499,922	446,462	415,754	350,483
Miscellaneous	61,524	142,010*	137,656	107,662	102,389	129,084
Unemployment Expenditure †	—	—	—	262,427	188,901	123,750
Public Debt	3,120,843	3,204,387	3,387,788	3,452,896	3,896,411	3,952,638
TOTAL £	14,694,569	17,065,307	21,669,628	21,075,379	19,505,957	19,720,265

* Including Special Incremental Pay.
† Represents Loans and Advances to Municipalities, Provincial and Railway Administrations.
‡ Details of each of these services appear in the following pages.

3. **General Government.**—Particulars are given below of the various classes of expenditure upon the general government of the Union for six financial years (1st April to 31st March), and in the series of tables which follow are given for the same period details of each class of expenditure enumerated hereunder:—

EXPENDITURE—GENERAL GOVERNMENT, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Governor-General	22,827	24,804	26,543	26,272	25,746	25,889
Legislature	95,001	124,734	146,757	156,235	130,817	126,498
Provincial Administrators	9,000	9,000	9,000	9,228	9,000	8,969
Prime Minister	9,028	28,134	32,043	38,237	34,113	38,130
Interior	52,146	52,813	78,207	80,769	83,724	80,520
Treasury	278,236	318,843	454,146	449,817	510,073	431,773
Audit	62,574	65,743	83,780	77,067	73,892	70,793
High Commissioner, London	37,321	54,761	72,709	81,151	68,332	63,394
Printing and Stationery	312,471	328,631	454,055	385,693	261,370	254,530
Pensions and Gratuities	765,640	1,505,174	1,969,054	1,925,688	1,749,489	2,003,494
Public Service Commission	5,890	6,837	9,306	12,071	21,203	28,070
Census and Statistics	66,600	41,047	49,421	150,318	50,694	40,930
Commissions	11,548	22,882	29,374	16,015	6,165	5,444
TOTAL £	1,728,282	2,583,403	3,414,395	3,408,561	3,024,618	3,178,434

(i) *The Governor-General.*—In terms of Section 10 of the *South Africa Act*, the salary of His Excellency the Governor-General payable by the Union Government is fixed at

£10,000 per annum. The subjoined table gives particulars of expenditure under the vote for the Governor-General for six financial years (1st April to 31st March):—

EXPENDITURE—GOVERNOR-GENERAL, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	16,047	16,237	17,392	17,256	17,066	18,035
Travelling	3,054	4,171	4,600	3,846	3,749	3,682
Entertainment	2,500	2,500	3,046	4,000	4,000	3,452
Incidental Expenses	1,226	1,896	1,505	1,170	931	720
TOTAL £	22,827	24,804	26,543	26,272	25,746	25,889

(ii) *The Legislature.*—The subjoined table gives particulars of expenditure on the Parliament of the Union, the Senate, and House of Assembly separately, and also on the registration of voters and Parliamentary elections, for six financial years (1st April to 31st March):—

EXPENDITURE ON LEGISLATION (INCLUDING REGISTRATION OF VOTERS AND ELECTIONS), 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Senate.						
Salaries, Wages, and Allowances	6,260	6,846	7,574	7,745	7,141	7,040
Allowances to Senators	14,970	15,116	16,976	19,600	18,733	19,001
Incidental Expenses	178	367	1,825	506	467	487
Reporting, etc., Hansard	499	1,122	643	787	911	1,053
House of Assembly.						
Salaries, Wages, and Allowances	18,513	19,677	25,078	22,563	21,291	21,410
Allowances to Members	47,529	42,259	65,348	66,595	62,276	61,629
Incidental Expenses	2,478	2,460	3,974	2,560	5,988	2,532
Hansard	—	—	—	—	—	1,937
Registration of Voters and Elections.						
Salaries, Wages, etc.	4,574	36,887	642	2,637	2,772	3,408
Transport			—	217	208	264
Registration			24,697	32,515	10,793	7,185
Parliamentary Elections				510	237	552
TOTAL £	95,001	124,734	146,757	156,235	130,817	126,498

(iii) *Prime Minister.*—Particulars are given hereunder of expenditure for six financial years (1st April to 31st March) on the Department of the Prime Minister:—

EXPENDITURE—PRIME MINISTER, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	6,901	7,480	8,460	8,719	9,306	10,120
Transport	1,603	3,405	1,703	3,145	3,948	2,141
Incidental Expenses	524	1,015	510	539	505	500
Contributions towards Expenses of League of Nations' Secretariat	—	16,234	20,000	24,379	18,853	24,248
Expenses of Delegation to Geneva	—	—	1,370	1,455	1,501	1,121
TOTAL £	9,028	28,134	32,043	38,237	34,113	38,130

(iv) *Interior.*—The subjoined table gives for six financial years (1st April to 31st March) particulars of expenditure under the vote for the Department of the Interior, *exclusive* of expenditure on Statistics, Museums, Libraries, Art Galleries, etc., Astronomy, Registration of Voters and Parliamentary Elections, Public Service Commission, Printing and Stationery, Public Health, Lepers and Lunatics, particulars in regard to which are given separately hereunder :—

EXPENDITURE—INTERIOR, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
General Administration—						
Salaries, Wages, etc.	26,580	27,461	31,180	28,562	28,596	28,938
Transport	945	1,336	2,487	2,374	1,740	1,750
Incidental Expenses	216	780	876	1,083	912	893
Leave Gratuities	—	—	—	—	—	452
Immigration and Asiatic Affairs—						
Salaries, Wages, etc.	14,232	15,722	21,457	18,615	18,203	18,527
Transport	1,077	1,232	648	1,125	989	1,170
Repatriation of Asiatics	8,067	4,686	17,255	24,448	27,754	24,570
Deportation	—	—	—	—	3,436	2,184
Assisted Immigration	—	—	56	151	755	1,043
Grants-in-Aid (Indian Trust)	—	567	1,101	—	—	—
Incidental Expenses	1,029	1,029	3,147	4,411	1,339	993
TOTAL.....£	52,146	52,813	78,207	80,769	83,724	80,520

(v) *Treasury.*—Particulars are given hereunder of expenditure for six financial years (1st April to 31st March) on the administration of the Treasury of the Union, including the Departments of the Commissioner for Inland Revenue and Taxes and the Commissioner of Customs and Excise :—

EXPENDITURE—TREASURY, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Treasury—						
Salaries, etc.	42,380	50,189	78,180	94,737	77,469	75,070
Transport	1,240	1,525	2,361	2,929	2,332	2,315
Incidental Expenses	662	1,213	19,164	1,465	73,335*	657
Expenses of Mint	—	—	—	—	4,698	—
Inland Revenue and Taxes—						
Salaries, etc.	65,157	77,775	108,284	112,844	121,604	123,452
Transport	1,402	1,947	1,903	2,656	2,018	2,757
Court of Appeal	311	642	1,471	1,650	2,375	2,245
Incidental Expenses	1,453	2,177	2,003	2,266	2,414	5,510
Customs and Excise—						
Salaries, etc.	156,319	172,958	226,819	204,604	190,896	188,252
Transport	3,790	4,033	5,114	5,527	7,384	7,322
Uniforms	2,525	3,108	4,881	4,229	3,238	2,558
Incidental Expenses	1,844	2,304	2,689	1,934	2,017	2,249
Tabulating Machines	1,153	972	1,277	1,976	2,038	1,639
Training Ship "General Botha"	—	—	—	13,000	17,800	15,000
Customs Investigation Officer	—	—	—	—	455	2,747
TOTAL.....£	278,236	318,843	454,146	449,817	510,073	431,773

* Includes £72,123 expended on industrial disturbances.

(vi) *Audit.*—Particulars are given hereunder for a period of six financial years (1st April to 31st March) as to expenditure on the Department of the Controller and Auditor General of the Union, and the salaries of Provincial Auditors, which are paid by the Union Government:—

EXPENDITURE—AUDIT, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Controller and Auditor General—						
Salaries, etc.	56,166	59,387	75,467	69,268	66,031	62,909
Transport	3,244	2,928	4,185	3,999	4,115	4,151
Incidental Expenses	247	296	449	381	333	280
Provincial Audit—						
Salaries	2,917	3,132	3,679	3,419	3,413	3,453
TOTAL.....£	62,574	65,743	83,780	77,067	73,892	70,793

(vii) *High Commissioner, London.*—Particulars are given hereunder for a period of six financial years (1st April to 31st March) as to expenditure on the office of the High Commissioner for the Union in London, including the office of the Trade Commissioner:—

EXPENDITURE—HIGH COMMISSIONER, LONDON, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Salaries, Wages, etc.	29,188	36,685	48,213	52,509	45,883	44,716
Transport	447	766	1,051	1,789	1,327	1,227
Rent	2,993	3,641	5,050	3,558	3,236	2,338
Rates and Taxes	—	—	—	5,664	6,276	5,626
Maintenance, etc.	—	—	—	2,840	2,947	2,380
Advertising and Exhibitions	133	5,269	10,458	6,076	2,675	449
Incidental Expenses	4,560	8,400	7,937	8,715	5,988	6,658
TOTAL.....£	37,321	54,761	72,709	81,151	68,332	63,394

(viii) *Printing and Stationery.*—Particulars are given hereunder for six financial years (1st April to 31st March) as to expenditure on salaries and wages, supplies, and other expenses of the Printing and Stationery Department of the Union Government:—

EXPENDITURE—PRINTING AND STATIONERY, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Salaries, Wages, etc.	87,967	98,924	126,077	122,325	109,316	111,444
Transport	97	199	125	519	135	118
Printing, Paper, and Material	82,171	76,211	94,621	87,049	46,491	35,030
Contract Printing and Binding	36,895	56,721	92,421	74,963	40,329	46,599
Stationery Supplies	52,779	69,285	72,784	67,007	44,693	40,529
Advertising in Newspapers	12,283	16,170	17,159	11,359	9,044	8,213
New Plant	948	2,096	10,400	11,906	2,936	4,071
Plant, Maintenance, and Running	1,559	2,502	2,424	3,208	2,182	2,066
Transport of Supplies and Incidental Expenses	5,048	6,523	9,315	7,357	6,244	6,460
Stores—Adjustment of Standard Stock Account	32,724	—	28,729	—	—	—
TOTAL.....£	312,471	328,631	454,055	385,693	261,370	254,530

(ix) *Pensions and Gratuities.*—Particulars are given hereunder as to expenditure incurred by the Union Government during a period of six financial years (1st April to 31st March) on Pensions and Gratuities:—

EXPENDITURE—PENSIONS AND GRATUITIES, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Superannuation Allowances....	130,327	138,142	151,604	162,948	200,637	230,745
Invalid Allowances.....	73,397	78,771	79,986	83,999	103,744	105,249
Compensation Allowances.....	126,698	121,362	120,770	123,650	187,490	317,008
War Allowances.....	290,444	755,535	1,273,037	1,176,736	1,038,854	934,996
Miscellaneous Allowances.....	32,944	30,925	34,340	39,162	30,058	53,659
Contributions to Pensions and Provident Funds.....	111,830	130,439	169,036	191,296	175,144	281,929
Estimated Deficit on Transvaal Administrative and Clerical Service Pension Fund.....	—	250,000	—	—	—	—
Cost of Living: Additional Allowance.....	—	—	140,281	147,897	13,562	—
Hospital and Medical Treatment of ex-Soldiers.....	—	—	—	—	—	62,613
Artificial Limbs and Appliances	—	—	—	—	—	9,997
Assistance to ex-Soldiers, etc..	—	—	—	—	—	4,025
Miscellaneous.....	—	—	—	—	—	3,273
TOTAL.....£	765,640	1,505,174	1,969,054	1,925,688	1,749,489	2,003,494

Details of civil and war pensions for which the Union Government was responsible at 30th September, 1923 and 1924, are given in the subjoined tables:—

PARTICULARS OF PENSIONS AT 30th SEPTEMBER, 1923 AND 1924.

Details.	At 30th September, 1923.		At 30th September, 1924.	
	No.	Amount.	No.	Amount.
CIVIL PENSIONS.				
		£		£
Male Pensioners.....	4,771	686,139	4,997	754,045
Female Pensioners.....	718	38,329	772	42,622
Industrial Disturbances, 1922—				
Disability Pensions.....	46	3,420	48	3,335
Widows and other Dependents' Pensions.....	70	8,610	74	8,507
TOTAL.....	5,605	736,498	5,891	808,509
WAR PENSIONS.				
		£		£
Pensions in respect of pre-1914 S.A. Wars—				
Disability Pensions.....	1,788	81,436	1,371	65,948
Widows and other Dependents' Pensions.....	1,409	73,133	1,369	70,939
Pensions in respect of the 1914–18 War—				
Disability Pensions.....	4,262	267,366	3,965	264,295
Widows' and other Dependents' Pensions.....	4,732	355,381	4,755	350,730
TOTAL.....	12,191	777,316	11,460	751,912

(x) *Public Service Commission.*—Particulars are given hereunder as to expenditure incurred in connexion with the Public Service Commission during a period of six financial years (1st April to 31st March).

EXPENDITURE—PUBLIC SERVICE COMMISSION, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Salaries, Wages, etc.	5,644	6,663	9,184	11,154	17,601	25,079
Transport	73	68	69	740	3,237	2,768
Incidental Expenses	173	106	53	177	365	223
TOTAL.....£	5,890	6,837	9,306	12,071	21,203	28,070

(xi) *Census and Statistics.*—Particulars are given hereunder for six financial years (1st April to 31st March) as to expenditure under the heading of Census and Statistics. The Vote includes the registration of births, deaths, and marriages in the Union. Population censuses were taken in 1918 and 1921, and the expenditure on these operations is included.

EXPENDITURE—CENSUS AND STATISTICS, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Salaries, Wages, etc.	30,848	31,186	38,867	60,743	40,441	34,058
Transport	196	384	368	202	149	431
Incidental Expenses	35,556	9,477	10,186	89,373	10,104	6,441
TOTAL.....£	66,600	41,047	49,421	150,318	50,694	40,930

4. **Law, Order, and Protection.**—The subjoined table gives particulars of expenditure in the Union for six financial years (1st April to 31st March) on Law, Order, and Protection. The series of tables following give details in regard to expenditure under the various classes for the same period :—

EXPENDITURE—LAW, ORDER, AND PROTECTION, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Justice	67,525	69,896	85,372	83,355	92,613	75,880
Superior Courts	191,382	209,046	237,592	236,348	215,533	220,018
Magistrates' Courts and Offices	467,382	500,243	626,213	575,139	542,747	548,231
Registry of Deeds	32,975	37,406	55,354	50,887	46,056	46,967
Police	1,759,636	2,042,242	3,496,327	2,933,538	2,604,140	2,533,043
Prisons and Reformatories	617,237	710,100	979,089	860,778	766,506	752,734
Industrial Schools and Child Welfare	41,481	61,227	98,772	125,412	142,532	159,635
Defence	1,300,000	1,520,530	1,264,710	1,324,071	947,753	933,998
TOTAL.....£	4,477,618	5,150,690	6,843,429	6,189,528	5,357,880	5,270,506

(i) EXPENDITURE—JUSTICE, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.....	54,741	59,812	74,433	68,316	66,117	58,918
Transport.....	2,620	2,759	3,232	2,910	2,188	2,300
Legal Expenses.....	9,810	6,860	7,267	11,541	9,626	14,278
Incidental Expenses.....	354	465	440	588	14,682*	384
TOTAL.....£	67,525	69,896	85,372	83,355	92,613	75,880

* Including £14,209 expended on industrial disturbances.

(ii) EXPENDITURE—SUPERIOR COURTS, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Establishments—						
Salaries.....	140,305	148,676	173,320	166,494	161,248	158,671
Transport.....	2,637	3,522	3,587	2,768	3,065	3,799
Circuit Travelling.....	6,098	6,572	7,246	8,061	6,960	7,839
Incidental Expenses.....	1,800	1,910	2,283	2,458	2,092	2,176
Supreme and High Courts—						
Witnesses, etc.....	3,852	5,416	5,131	7,267	4,669	5,098
Juries.....	3,811	4,418	4,638	3,674	3,704	5,106
Service of Process.....	4,005	5,889	6,555	7,165	4,112	5,740
Barristers.....	374	572	534	462	333	534
Casual Interpreting, etc.....	482	837	642	901	586	1,145
Circuit Courts—						
Witnesses, etc.....	9,576	10,663	10,910	11,644	10,326	10,675
Juries.....	6,194	5,998	6,737	6,665	5,870	6,660
Service of Process.....	7,995	9,552	10,842	13,582	7,901	8,205
Barristers.....	3,697	4,225	4,623	4,605	4,288	3,905
Casual Interpreting, etc.....	556	796	544	602	379	465
TOTAL.....£	191,382	209,046	237,592	236,348	215,533	220,018

(iii) EXPENDITURE—MAGISTRATES, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Establishments—						
Salaries, Wages, etc.....	394,991	413,693	524,036	482,798	455,141	455,182
Transport.....	26,357	31,205	37,487	29,272	29,547	32,820
Liquor Licensing Courts.....	614	833	771	859	867	881
Incidental Expenses.....	3,475	3,762	4,586	6,219	4,094	3,544
Administration of Justice—						
Witnesses.....	31,396	39,173	47,758	46,887	44,049	46,411
Medico—Legal.....	7,204	8,332	8,284	6,245	6,063	6,517
Casual Interpreting.....	1,786	1,807	1,545	1,329	1,392	1,401
Incidental Expenses.....	1,559	1,438	1,746	1,530	1,594	1,475
TOTAL.....£	467,382	500,243	626,213	575,139	542,747	548,231

(iv) EXPENDITURE—DEEDS REGISTRY, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	32,406	36,842	54,521	50,188	45,482	46,208
Transport	355	283	471	431	395	451
Incidental Expenses	214	281	362	268	179	308
TOTAL.....£	32,975	37,406	55,354	50,887	46,056	46,967

(v) EXPENDITURE—POLICE, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24
	£	£	£	£	£	£
Salaries, Wages, etc.	1,475,894	1,715,085	2,958,232*	2,425,470	2,148,425	2,131,364
Transport	27,044	35,999	70,251	101,895	66,195	65,585
Clothing	66,527	84,797	115,640	137,132	104,079	95,643
Equipment	10,880	12,920	21,003	31,635	20,475	20,158
Forage	66,110	75,910	149,692	95,943	75,720	74,186
Special Escorts, etc.	15,167	17,323	24,981	23,889	26,326	26,827
Saddlery, Harness, Vehicles, etc.	18,325	23,546	34,524	34,809	26,403	30,214
Purchase of Horses, etc.	10,929	7,988	12,721	7,301	11,519	12,537
Medical	29,943	28,546	28,311	28,052	27,632	28,758
Farriery and Veterinary	8,300	8,381	10,970	11,073	10,202	9,194
Fuel, Light, etc.	5,159	4,421	7,170	5,368	4,266	4,181
Detective Services	17,782	20,991	19,556	18,393	18,167	22,670
Grant to Recreation and Benevolent Fund	1,836	2,277	3,143	2,500	2,500	2,500
Incidental Expenses	5,740	4,058	38,810†	4,485	58,014‡	5,653
Special Constables — Stock Diseases	—	—	1,323	5,593	4,217	3,573
TOTAL.....£	1,759,636	2,042,242	3,496,327	2,933,538	2,604,140	2,533,043

* Including salaries £278 980, Members of S.A.M.R. seconded to S.A.P.
† Including £34,438 Contingent Services for Members of S.A.M.R. seconded to S.A.P.
‡ Including £53,835 expended on "Industrial Disturbances."

(vi) EXPENDITURE—PRISONS AND REFORMATORIES, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Administration—						
Salaries, Wages, etc.	15,908	18,419	23,120	21,272	19,019	17,976
Incidental Expenses	218	73	220	186	117	296
Prisons and Gaols (Staff)—						
Salaries, Wages, etc.	348,502	430,068	593,539	531,910	493,336	485,564
Transport	11,899	12,260	14,803	11,140	11,654	13,607
Quarters and Rations	17,210	10,857	*	*	*	*
Uniforms and Equipment	15,870	13,827	24,046	19,454	12,764	9,567
Medical	3,407	3,134	3,119	2,798	2,688	3,383
Incidental Expenses	1,016	784	1,037	872	863	739
Prisons and Gaols (Inmates)—						
Transport	17,344	20,077	27,632	25,644	23,133	24,689
Rations and Fuel	80,885	88,341	116,568	105,627	87,983	82,583
Clothing and Bedding	25,367	32,873	59,701	36,758	26,509	29,078
Medical	8,042	6,678	8,464	8,570	7,699	6,895
Equipment	24,452	19,184	32,358	21,246	15,639	11,449
Gratuities and Aid	4,563	4,716	4,420	4,6 3	5,010	5,085
Incidental Expenses	1,420	809	582	601	604	656
Reformatories—						
Salaries, Wages etc.	24,547	30,062	43,962	40,518	36,057	38,451
Transport	1,742	2,057	2,578	3,869	3,027	3,210
Rations, Clothing, Medical, etc.	11,053	11,522	16,818	16,425	10,569	10,003
Equipment	3,464	4,180	5,770	3,631	2,827	3,680
Incidental Expenses	328	179	352	545	407	400
Hostels and Inebriate Retreats	—	—	—	5,069	6,601	5,423
TOTAL.....£	617,237	710,100	979,089	860,778	766,506	752,734

* Now included in new rates of pay.

(vii) EXPENDITURE—INDUSTRIAL SCHOOLS AND CHILD WELFARE, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	10,049	14,540	22,320	26,354	29,409	32,458
Transport	1,493					
Rations, Clothing, and Medical.	13,703	31,163	43,852	39,763	41,077	41,130
Equipment	6,850					
Incidental Expenses	532					
Grants*	8,854	15,524	32,600	59,295	72,046	86,047
TOTAL.....£	41,481	61,227	98,772	125,412	142,532	159,635

* Grants to Certified Institutions and maintenance of children under the *Children's Protection Act*, 1913.

(viii) EXPENDITURE—DEFENCE, 1919-20 TO 1923-24.

Service.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
Administration and Headquarters Staff—	£	£	£	£	£
Salaries, Wages, etc.	177,325	134,369	105,566	93,447	53,706
Transport	7,287	4,707	4,933	3,241	2,418
Incidental	12,387	6,201	4,451	5,332	3,552
Citizen Forces and Cadets—					
Salaries, Wages, etc.	160,654	156,562	135,773	77,493	82,401
Transport	13,223	13,628	23,426	15,486	22,201
Clothing	16,621	21,710	31,735	33,079	32,582
Arms, Equipment, and Ammunition	58,806	117,227	50,356	38,607	48,807
Camps and Field Manœuvres	11,418	13,501	4,871	3,109	10,431
Grants (Cadets) and Corps Allowances §	4,236	2,312	3,006	2,196	3,325
Rations, Fuel, Light, and Forage	18,988	1,343	1,024	2,207	16,962
Medical Services	3,514	1,273	1,375	1,005	1,418
Incidental	10,675	4,088	4,237	4,425	7,896
Horse Allowances, Hire, and Compensation	2,145	531	1,492	3,287	3,868
Military Schools, Ordnance Supply, Transport, Hospitals, Cantonments, and Barracks Establishments—					
Salaries, Wages, etc.	113,339		90,631	88,475	95,354
Transport	2,670		3,061	1,938	4,105
Clothing	1,262		1,252	3,219	4,048
Rations, Fuel, and Light	24,612		† 10,410	5,841	17,044
Arms, Equipment, and Ammunition	3,209	190,964	3,754	16,920	11,949
Animal and Mechanical Transport	564		1,343	12,751	13,583
Students at Military Schools	182		8,293	6,547	8,171
Medical Stores and Services	21,765		1,097	1,062	2,098
Incidental	9,626		2,990	1,811	3,126
South African Air Force—					
Salaries, Wages, etc.			34,206	41,658	54,645
Transport			12,932	550	2,005
Clothing			—	2,360	3,017
Rations, Fuel, and Light			—	5,971	10,338
Petrol, Equipment, etc.	79,747	87,527	8,320	11,825	28,401
Aerodromes and Technical Equipment			12,980	10,847	
Aircraft Replacement Fund			6,757	10,770	481
Medical Services			—	1,913	2,396
Incidental			5,698	1,413	1,256
Permanent Field and Cape Garrison Forces—					
Salaries, Wages, etc.	724,168	138,277	393,572	219,354	174,122
Transport	22,418	2,030	6,174	6,015	6,754
Clothing	45,451	8,002	17,355	18,796	18,654
Rations, Fuel, and Light	—	—	8,997	13,982	44,203
Arms, Equipment, and Ammunition	27,366	31,172	10,754	12,475	16,455
Purchase and Maintenance of Horses and Transport	64,522	24,091	16,008	15,592	17,587
Medical Services	15,884	7,572	15,354	10,725	11,794
Incidental	14,218	672	1,752	2,242	3,809
Naval Services (including R.N.V.R.)—					
Salaries, Wages, etc.	52,932	4,298	7,773	20,690	27,305
Transport	402	581	705	1,480	817
Rations, Fuel, and Light	3,196	—	287	5,767	6,729
Clothing	6,940	6,643	3,364	5,884	1,805
Stores, Equipment, Works, and Repairs	—			10,632	15,779
Contribution to H.M. Navy	85,000	85,000	85,000	—	—
Incidental	894	156	168	2,529	1,543
Special Services	4,129	200,273	‡180,839	‡92,805	35,058
TOTAL.....£	*1,821,775	1,264,710	1,324,071	947,753	933,998

* Excess of £301,245 transferred to Loan Vote J. Defence Expenditure from Revenue for 1919–20, £1,520,530.

† Rations and Forage.

‡ Including £138,117 for 1921–22, and £43,200 for 1922–23 expended on Industrial Disturbances.

§ Corps Allowances included in "Incidental Expenditure" for years 1920–21, 1921–22, and 1922–23.

NOTE.—Defence expenditure from revenue for 1918–19 was £1,300,000. No further particulars are available.

5. **Higher Education and Advancement of Science.**—The subjoined table gives particulars of expenditure in the Union for six financial years (1st April to 31st March) on Higher Education and Advancement of Science. The Union Government deals only with Higher Education, the Provincial Administrations being charged with the care of primary and secondary education. Particulars as to the expenditure on Higher Education are given in Chapter IV, § 1.

EXPENDITURE—HIGHER EDUCATION AND ADVANCEMENT OF SCIENCE, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Higher Education—						
Salaries, Wages, etc.	4,608	6,779	9,956	7,512	7,568	7,886
Transport	437	917	1,150	515	492	614
Grants in Aid of Universities and Colleges	132,283	168,682	264,244	245,535	282,502	307,348
Grants to Teachers and Students	12,154	17,621	18,632	20,646	13,260	8,553
Miscellaneous	2,803	4,825	4,239	3,699	3,351	3,701
Libraries and Museums—						
Salaries, Wages, etc.	2,411	2,575	3,520	3,240	2,793	2,695
Grants in Aid	22,744	25,304	30,548	29,028	26,919	27,653
Meteorology and Astronomy—						
Salaries, Wages, etc.	3,354	4,198	6,003	5,423	4,603	4,459
Incidental	1,094	785	880	982	2,954	3,095
TOTAL.....£	181,888	231,686	339,172	316,580	344,442	366,004

6. **Public Health and Poor Relief.**—The subjoined table gives for six financial years (1st April to 31st March) particulars of expenditure by the Union Government on Public Health, Medical Administration, Lepers, Mentally Disordered Persons, and Poor Relief. General Hospitals are controlled by the Provincial administrations, which also administer Poor Relief (see C. below).

EXPENDITURE—PUBLIC HEALTH, ETC., 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Public Health and Medical—						
*Salaries, Wages, etc.	80,427	88,018	140,632	150,046	149,777	148,496
Transport, etc.	4,148	3,945	6,645	6,032	5,893	6,509
Supplies and Services, etc.	51,893	63,432	48,811	30,303	23,758	26,763
Local Authorities	—	—	37,643	68,671	56,400	48,669
Grants in Aid	9,787	8,329	9,379	9,374	10,046	9,762
Miscellaneous	†229,841	†70,282	2,299	‡13,630	§1,081	3,689
Mental Hospitals and Leper Institutions—						
Salaries, Wages, etc.	146,188	180,856	245,984	248,513	234,201	248,776
Supplies and Services	255,232	301,395	380,716	309,639	253,033	269,140
General Expenses	10,810	12,143	17,469	21,203	20,061	20,445
Grants in Aid	1,350	5,155	2,719	2,635	6,436	3,684
TOTAL.....£	789,676	733,555	892,297	860,046	760,686	785,933

* Includes fees to district surgeons.
† Represents expenditure in connexion with influenza epidemic.
‡ Includes £7,834 expended on influenza epidemic.
§ Includes £315 expended on industrial disturbances.

7. **Lands and Agriculture.**—The subjoined table gives for six financial years (1st April to 31st March) particulars of expenditure by the Union Government on Agriculture and Forests, the administration and survey of Lands and on Irrigation and Water-boring. Further tables give details in regard to expenditure under these various heads :—

EXPENDITURE—AGRICULTURE, LANDS, AND IRRIGATION, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Agriculture	665,162	738,230	956,077*	954,059	877,036	1,156,340
Forestry	152,590	171,004	236,805	226,041	155,280	158,110
Lands	85,447	110,460	134,497	120,122	108,032	111,955
Survey	47,306	64,986	89,309	70,009	57,149	56,395
Irrigation	146,185	167,941	210,808	306,695	351,297	189,659
TOTAL.....£	1,096,690	1,252,621	1,627,496	1,676,926	1,548,794	1,672,459

(i) EXPENDITURE—AGRICULTURE, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24
Agriculture—	£	£	£	£	£	£
Salaries, Wages, etc	344,590	381,665	504,957	501,385	466,081	473,803
Transport	57,294	66,743	95,742	83,709	68,696	69,972
Grants	5,829	7,640	10,611	12,058	6,305	2,725
Experimental Field Work and Miscellaneous	157,779	164,772	185,248	190,703	179,928	462,559*
TOTAL.....£	565,492	620,820	796,558	787,855	721,010	1,009,059
Agricultural Education—						
Salaries	42,416	49,138	66,530	74,762	73,383	69,175
Transport	4,606	4,991	6,031	6,374	7,317	6,415
Scholarships and Bursaries	2,805	4,849	8,177	12,451	8,984	4,474
Experimental	643	489	933	677	1,213	666
Maintenance	42,969	54,023	68,928	67,031	62,385	61,791
Miscellaneous	6,231	3,920	8,920	4,909	2,744	4,760
TOTAL.....£	99,670	117,410	159,519	166,204	156,026	147,281
GRAND TOTAL...£	665,162	738,230	956,077	954,059	877,036	1,156,340

* Includes £325,261 for "Investigation and Suppression of Insect Pests."

(ii) EXPENDITURE—FORESTRY, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Salaries, Wages, etc	58,693	68,672	89,077	85,967	82,207	82,094
Transport	9,387	10,558	12,606	11,416	10,815	12,292
Nurseries and Plantations	55,849	56,137	76,922	68,473	41,936	45,498
Forest Protection and Development	6,934	7,637	11,430	11,191	10,071	10,911
Uniforms	997	1,918	2,034	1,808	1,194	1,709
Incidental Expenses	1,561	4,478	3,608	4,922	5,470	3,953
Relief of Distress	19,169	21,604	41,128	42,264	3,587	1,653
TOTAL.....£	152,590	171,004	236,805	226,041	155,280	158,110

(iii) EXPENDITURE—LANDS, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Salaries, Wages, etc	51,839	62,366	87,330	83,369	74,622	73,532
Transport	7,023	8,237	10,255	10,455	8,889	9,547
Fencing and Maintenance of Crown Land	8,980	18,504	18,566	14,102	16,045	14,421
Land Board	5,941	9,757	9,386	6,704	6,494	11,214
Miscellaneous	11,664	11,596	3,631	2,764	1,982	3,241
Relief of Distress	—	—	5,329	2,728	—	—
TOTAL.....£	85,447	110,460	134,497	120,122	108,032	111,955

(iv) EXPENDITURE—SURVEY, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	38,495	42,520	57,674	59,669	50,854	49,922
Transport	502	736	758	581	829	956
Government Surveys	7,793	7,824	13,039	8,684	4,576	4,147
Incidental Expenses	516	985	838	1,075	890	1,370
Employment of European Labourers on Land Settlements	—	12,921	17,000	—	—	—
TOTAL.....£	47,306	64,986	89,309	70,009	57,149	56,395

(v) EXPENDITURE—IRRIGATION, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, wages, etc.	47,516	48,149	72,576	60,675	57,176	54,979
Transport	9,416	8,725	12,508	10,964	8,652	9,393
Surveys	17,430	25,785	37,000	37,617	26,184	32,180
Maintenance of Government irrigation works	9,047	6,718	13,832	110,298	223,543	71,873
Boring	45,291	66,248	62,642	75,579	22,719	10,214
Hydrographic Survey—						
Salaries, wages, etc.	2,086	2,080	2,343	1,958	2,214	2,277
Incidental	2,970	3,375	4,062	5,452	8,116	5,306
Miscellaneous	12,429	6,861	5,845	4,152	2,693	3,437
TOTAL.....£	146,185	167,941	210,808	306,695	351,297	189,659

8. **Mines and Industries.**—The subjoined table gives for six financial years (1st April to 31st March) particulars of expenditure by the Union Government through the Mines and Industries Department, including the cost of administration, and expenditure on development and contribution towards expenditure incurred in the prevention of miners' phthisis:—

EXPENDITURE—MINES AND INDUSTRIES, 1918–19 TO 1923–24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, wages, etc.—						
Administration			15,269	16,278	19,155	15,017
Mining commissioners			43,489	38,961	33,447	26,620
Mining titles and townships			22,318	20,173	16,733	16,475
Engineering	146,996	170,379	83,919	84,518	74,786	72,447
Geological survey			8,266	9,708	9,196	9,224
Labour and industries			45,733	44,215	42,343	49,149
Boring for minerals			960	—	—	—
District mining development	5,559	4,443	10,498	296	558	1,049
Miners' training school	3,575	4,220	3,771	3,761	4,267	4,230
Miners' phthisis	44,659	64,745	80,359	67,213	73,220	80,389
Transport	20,165	25,822	30,587	23,243	22,053	27,568
Miscellaneous	14,595	25,268	23,542	21,508	15,830	19,112
Relief of distress	—	—	1,865	2,090	5,599	9,599
British Empire Exhibition	—	—	—	—	—	50,000
TOTAL.....£	235,549	294,877	370,576	331,964	317,187	380,879

9. **Public Works.**—The subjoined table gives particulars of expenditure for six financial years (1st April to 31st March) by the Union Government on the administration of the Public Works Department, the Engineering and Architects Staff, and on Public Works and Roads and Bridges. These works last named are principally under the control of the Provincial administrations.

EXPENDITURE—PUBLIC WORKS, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	161,009	190,140	252,740	225,346	178,913	177,613
Transport	17,968	21,814	27,536	22,548	17,731	19,103
Plant and Stores	3,435	11,914	13,190	6,152	4,757	3,759
Rent, Rates, Insurance, Water, and Light	189,433	194,462	218,011	270,424	270,829	269,420
New Works and Buildings	66,412	75,785	96,974	87,299	67,051	83,184
Maintenance, Works, and Buildings	138,697	165,381	194,396	202,077	217,218	216,983
Bridges — Maintenance and Minor Works	426	415	177	350	482	975
Incidental	6,971	10,710*	9,398†	5,546	5,156	4,437
TOTAL.....£	584,351	670,621	812,422	819,742	762,137	775,474

* Including £6,054 for Peace Celebrations. † Including £3,757 for Relief of Distress.

10. **Posts, Telegraphs, and Telephones.**—The subjoined table gives for six financial years (1st April to 31st March) particulars of expenditure in the Union on the Postal, Telegraph, and Telephone services of the Union:—

EXPENDITURE—POSTS, TELEGRAPHS, AND TELEPHONES, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	1,605,656	1,865,788	2,561,332	2,412,005	2,112,055	2,104,781
Transport	32,846	39,870	56,905	52,699	41,384	41,929
Uniforms	18,592	13,134	43,839	28,974	20,318	18,342
Conveyance of Mails	328,888	334,894	498,492	508,739	447,302	445,568
Subsidy and Subscriptions	965	896	1,670	—	—	—
Maintenance of Telegraphs and Telephones	42,265	63,450	82,153	99,357	112,500	82,287
Purchase and Maintenance of Transport	15,652	19,767	29,434	30,279	16,083	8,576
Technical Furniture and Fittings	3,751	4,145	12,095	15,182	8,651	7,049
Postage Stamps	7,729	20,737	15,278	11,950	5,217	3,133
Telegraph and Telephone Stores	999	1,132	1,469	1,919	832	1,963
Postal Stores and Supplies	14,644	16,080	37,041	34,582	15,607	14,253
Incidental Expenses	2,951	7,469	4,767	6,899	6,809*	6,740
TOTAL.....£	2,074,938	2,387,362	3,344,475	3,202,585	2,786,758	2,734,621

* Including £967 expended on "Industrial disturbances."

11. **Native Affairs.**—The subjoined table gives for six financial years (1st April to 31st March) particulars of expenditure by the Union Government on the administration of the Native Affairs Department, and on the various services connected therewith:—

EXPENDITURE—NATIVE AFFAIRS, 1918-19 TO 1923-24.

Service.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Salaries, Wages, etc.	231,479	263,835	348,152	317,749	291,825	256,986
Transport	25,230	28,353	38,996	31,735	31,160	33,211
Maintenance of Compounds	4,331	4,615	12,376	5,741	5,065	3,557*
Uniforms (Native Police)	2,486	4,220	4,421	5,061	4,155	3,246
Administration of Justice	5,372	6,095	6,039	6,383	6,301	6,099
Subsidies, etc., to Chiefs and Headmen	24,716	25,734	21,956	22,860	24,900	25,305
Promotion of Welfare of Natives (Natal)			4,400	4,400	4,400	4,400
Fencing, Dipping Tanks, etc.	41,336	42,791	46,814	41,043	40,629	3,470
Registration of Native Births in Natal	—	—	1,995	2,121	2,110	—
Incidental Expenses	8,260	14,312	7,153	9,345	4,419	5,693†
Relief of Distress in Native Areas	—	24,140	7,590	24	790	64
Leave Gratuities	—	—	—	—	—	8,452
TOTAL.....£	343,210	414,095	499,922	446,462	415,754	350,483

* Maintenance charges of Reserve Locations only.
† Including £1,000 grant to Lovedale Institution.

12. **Public Debt.**—The subjoined table gives for six financial years (1st April to 31st March) particulars as to expenditure by the Union Government on the Public Debt :—

EXPENDITURE—PUBLIC DEBT, 1918-19 TO 1923-24.

Service.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£
Interest	6,185,316	6,385,699	6,780,953	7,254,745	7,917,347	8,122,284
Less Railways and Harbours Interest	3,599,149	3,706,643	3,928,090	4,333,646	4,559,599	4,632,993
Balance	2,586,167	2,679,056	2,852,863	2,921,099	3,357,748	3,489,291
Management	23,104	27,078	35,529	45,000	45,131	63,347
Redemption	511,572	498,253	499,396	486,797	493,532	400,000
TOTAL.....£	3,120,843	3,204,387	3,387,788	3,452,896	3,896,411	3,952,638

13. **Salaries, Wages, and Allowances.**—The following table gives the expenditure on salaries, wages, and allowances in all Union Government Departments for a period of years :—

EXPENDITURE—TOTAL SALARIES, WAGES, AND ALLOWANCES PAID IN GOVERNMENT DEPARTMENTS, 1910-11 TO 1913-14 (AVERAGE) AND YEARS 1917-18 TO 1923-24.

Department.	*Average 1910-11 to 1913-14.	1917-18.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£	£	£	£
Agriculture	336,229	332,550	387,006	430,803	571,487	576,147	539,464	542,978
Audit	48,582	52,053	59,083	62,519	79,146	72,687	69,444	66,362
Census and Statistics	37,560	11,346	30,848	31,186	38,867	60,743	40,441	34,058
Deeds Registry	26,535	29,129	32,406	36,842	54,521	50,188	45,482	46,208
Defence	290,109	2,418,588	2,279,220	1,228,418	540,010	810,055§	541,117	487,533
Forestry	35,696	46,606	58,693	68,672	89,077	85,967	82,207	82,094
Governor-General's Office†	6,276	5,358	6,047	6,237	7,392	7,256	7,066	8,035
High Commissioner	22,631	24,148	29,188	36,685	48,213	52,509	45,883	44,716
Higher Education and Science	20,885	11,257	10,373	13,552	19,479	16,175	14,964	15,040
Industrial Schools and Child Welfare	3,128	7,277	10,049	14,540	22,320	26,354	29,409	32,458
Interior	50,708	45,713	40,812	43,183	52,637	47,177	46,799	47,465
Irrigation	32,397	40,303	49,602	50,229	74,919	62,633	59,390	57,256
Justice	52,213	51,194	54,741	59,812	74,433	68,316	66,117	58,918
Lands	30,636	42,649	51,839	62,366	87,330	83,369	74,622	73,532
Legislature—Elections, etc.‡	19,767	21,816	24,773	26,523	33,294	32,945	31,204	31,858
Magistrates	344,298	354,712	394,991	413,693	524,036	482,798	455,141	455,182
Mines and Industries	124,465	126,920	146,996	170,379	219,954	213,853	195,660	188,932
Native Affairs	206,091	204,667	231,479	263,835	348,152	317,749	291,825	256,986
Police	1,043,475	1,215,259	1,475,894	1,715,085	2,958,232	2,425,470	2,148,425	2,131,364
Posts, Telegraphs, etc.	1,073,650	1,354,847	1,605,656	1,865,788	2,561,332	2,412,005	2,112,055	2,104,781
Prime Minister	6,883	6,628	6,901	7,480	8,460	8,719	9,306	10,120
Printing and Stationery	76,361	75,516	87,967	98,924	126,077	122,325	109,316	111,444
Prisons and Reformatories	260,587	323,661	388,957	478,549	660,621	593,700	548,412	541,991
Public Health	159,848	191,607	226,615	268,874	386,616	398,559	383,978	397,272
Public Service Commission	7,458‖	5,228	5,644	6,663	9,184	11,154	17,601	25,079
Public Works	152,022	133,170	161,009	190,140	252,740	225,346	178,913	177,613
Superior Courts	139,828	130,891	140,305	148,676	173,320	166,494	161,248	158,671
Survey	32,695	33,440	38,495	42,520	57 674	59,669	50,854	49,922
Treasury	215,110	224,414	263,856	300,922	413,283	412,185	389,969	386,774
TOTAL.....£	4,856,123	7,520,947	8,299,445	8,143,095¶	10,492,806	9,902,547	8,746,312	8,624,642

* From 1st June, 1910. † Excluding salary of Governor-General (£10,000).
‡ Excluding allowances paid to Senators and Members of the House of Assembly.
§ Includes £42,534 for industrial disturbances. ‖ Year 1913-14 only.
¶ Exclusive of £72,524 special incremental pay.

14. **Parliamentary Appropriations.**—The following tables give (i) in summary, and (ii) in certain detail, appropriations of Parliament in respect of expenditure of the Union, for a period of two years, subsequent to the period covered by the tables given in the preceding paragraphs of this section, which contain only the audited and final figures :—

(i) COMPARATIVE CLASSIFIED SUMMARY OF UNION APPROPRIATIONS, EXCLUDING RAILWAYS AND HARBOURS, 1924–25 AND 1925–26.

Heading.	Appropriation.		Heading.	Appropriation.	
	1924–25.	1925–26.		1924–25.	1925–26.
	£	£		£	£
I. General Government	3,057,839	3,434,123	VIII. Public Works.....	769,356	780,655
II. Law, Order, and Protection.....	5,375,473	5,340,172	IX. Posts, Telegraphs, and Telephones..	2,675,350	2,771,630
III. Education, Science, etc.....	399,196	616,662	X. Native Affairs Department.....	330,931	328,243
IV. Public Health, Medical, Lepers, and Mental Hospitals..	828,232	885,156	XI. Provincial Administrations.....	4,428,939	5,378,005
V. Lands and Agriculture.....	1,615,084	1,758,913	XII. Miscellaneous Grants and Expenses...	135,989	148,191
VI. Mines and Industries	323,148	317,480	XIII. Public Debt.....	4,059,360	4,425,000
VII. Labour (including factories).....	347,580	362,656	TOTAL.....£	24,346,477	26,546,886

(ii) DETAILS OF UNION APPROPRIATIONS, 1924-25 AND 1925-26. [I to XI in Table (i) above.]

Heading.	Appropriation.		Heading.	Appropriation.	
	1924–25.	1925–26.		1924–25.	1925–26.
I. *General Government*—	£	£		£	£
(*a*) His Excellency the Governor-General..	26,691	26,022	(*d*) Registrar of Deeds	48,349	48,189
(*b*) Legislature (including Electoral Expenses)	151,070	144,516	(*e*) Police.....	2,538,755	2,540,755
(*c*) Provincial Administration.....	9,000	9,200	(*f*) Prisons and Reformatories	761,650	769,300
(*d*) Prime Minister.....	39,634	41,266	(*g*) Industrial Schools and Child Welfare.....	175,430	189,517
(*e*) Interior.....	84,321	84,903	(*h*) Defence.....	981,743	911,357
(*f*) Treasury (including Customs, Excise, and Revenue).....	429,995	435,793	TOTAL.....£	5,375,473	5,340,172
(*g*) Audit.....	73,844	76,232			
(*h*) High Commissioner, London.....	48,714	48,211	III. *Education, Science, etc.*—		
(*j*) Printing and Stationery.....	256,392	271,304	(*a*) Education (including Grants).....	353,680	572,305
(*k*) Pensions and Gratuities.....	1,857,000	2,208,000	(*b*) Libraries, Museums, etc.(including grants)	31,876	31,403
(*l*) Public Service Commission.....	29,046	27,947	(*c*) Meteorology and Astronomy.....	13,640	12,954
(*m*) Census and Statistics	42,132	50,729	TOTAL.....£	399,196	616,662
(*n*) Commissions and Committees.....	10,000	10,000			
TOTAL.....£	3,057,839	3,434,123	IV. *Public, Health, Medical, Lepers, and Mental Hospitals*—		
II. *Law, Order, and Protection*—			(*a*) Public Health and Medical.....	256,296	271,082
(*a*) Justice.....	74,085	75,635	(*b*) Lepers.....	137,957	140,400
(*b*) Superior Courts.....	221,406	226,710	(*c*) Mental Hospitals....	433,979	473,674
(*c*) Divisional Courts and Offices, i.e. Magistrates'.....	574,055	578,709	TOTAL.....£	828,232	885,156

(ii) DETAILS OF UNION APPROPRIATIONS, 1924-25 AND 1925-26 [I TO XI IN TABLE (i) ABOVE]—*continued.*

Heading.	Appropriation. 1924-25.	Appropriation. 1925-26.
	£	£
V. *Lands and Agriculture*—		
(*a*) Lands, Administration and Survey..	189,267	261,505
(*b*) Agriculture and Forests (including destruction of vermin and preservation of game).....	1,293,771	1,335,484*
(*c*) Irrigation and Water Boring.....	132,046	161,924
TOTAL.....£	1,615,084	1,758,913
VI. *Mines and Industries*—		
(*a*) Administration.....	17,580	17,198
(*b*) Industries.....	53,374	55,458
(*c*) District Offices (Mining Commissioners)	32,403	32,892
(*d*) Mining Titles and Townships.....	17,946	17,855
(*e*) Engineering.....	90,338	89,922
(*f*) Geological Survey...	11,476	11,890
(*g*) General Mining Development.....	4,000	4,000
(*h*) Filling in Abandoned Shafts.....	100	100
(*j*) Trading Stand Licences..	1,100	1,100
(*k*) Miners' Training Schools.....	5,000	5,000
(*l*) Miners' Phthisis.....	67,000	51,800
(*m*) Assistance to Diggers	4,950	6,100
(*n*) Telegraphs and Telephones.....	4,600	4,600
(*o*) Trade Commissioners	13,281	19,565
TOTAL.....£	323,148	317,480
VII. *Labour (including Factories)*—		
(*a*) Salaries, Wages, etc.	36,080	47,156
(*b*) Transport.....	5,600	5,600
(*c*) Expenses of Boards and Conferences...	3,100	4,350
(*d*) Grants, Medical Fees, etc.....	2,350	2,400
(*e*) Incidental.....	450	650
(*f*) Unemployment.....	300,000	300,000
(*g*) Telegraphs and Telephones.....	—	2,500
TOTAL.....£	347,580	362,656
VIII. *Public Works*—		
(*a*) Salaries, Wages, etc.	178,956	180,465
(*b*) Transport.....	20,000	20,000
(*c*) Plant and Stores....	2,900	2,900
(*d*) Rent, Rates, Insurance, Water, and Light.....	266,800	269,790
(*e*) New Works and Buildings.....	86,000	92,000
(*f*) Maintenance of Works and Buildings.....	206,000	206,000
(*g*) Bridges—Maintenance and Minor Works.	1,200	2,300
(*h*) Incidental.....	4,200	4,200
(*j*) Telegraphs and Telephones.....	3,300	3,000
TOTAL.....£	769,356	780,655
IX. *Posts, Telegraphs, and Telephones*—		
(*a*) Salaries, Wages, and Allowances (including Subsistence and Transport).....	2,017,025	2,133,105
(*b*) Uniforms, Technical Furniture, Stores, Incidental Expenses Subsidies, etc.....	64,375	63,825
(*c*) Conveyance of Mails	457,000	456,700
(*d*) Maintenance of Telegraphs and Telephones.....	120,250	105,000
(*e*) Purchase and Maintenance of Transport.....	—	—
(*f*) Telegraphs and Telephones.....	16,700	13,000
TOTAL.....£	2,675,350	2,771,630
X. *Native Affairs Department*—		
(*a*) Salaries, Wages, and Allowances (including Subsistence and Transport).....	274,157	271,538
(*b*) Subsidies and Allowances to Chiefs and Headmen, and Promotion of the Welfare of the Natives (Natal and Zululand).....	31,800	31,800
(*c*) Administration of Justice.....	5,500	5,500
(*d*) Maintenance of Compounds, Fencing, Water Supplies, and Dipping Tanks in Native Areas.....	6,224	5,055
(*e*) Uniforms and Incidental Expenses...	9,700	10,100
(*f*) Relief of Distress in Native Areas.....	250	950
(*g*) Telegraphs and Telephones.....	3,300	3,300
TOTAL.....£	330,931	328,243
XI. *Provincial Administration*—		
(*a*) Cape of Good Hope.	1,671,315	2,258,471
(*b*) Natal.....	603,016	546,894
(*c*) Transvaal.....	1,541,802	1,807,541
(*d*) Orange Free State...	612,806	765,099
TOTAL.....£	4,428,939	5,378,005

* Includes £25,000 for Relief of Distress.

C. REVENUE AND EXPENDITURE OF PROVINCES.

§ 1. Financial System of Provinces.

1. **General.**—There is a provincial revenue fund in every Province, into which all revenues raised or received by the Province are paid. Appropriations are effected by Ordinance of the Provincial Council. It is only under the authority of such an Appropriation Ordinance that any withdrawal from the fund can take place. The provincial accounts are audited in each case by an auditor appointed and paid by the Union Government.

With the approval of the Treasury, a provincial administration may borrow during any financial year such sum as may be required to meet a deficit in the provincial revenue fund.

§ 2. Ordinary Revenue of Provinces.

1. **Sources of Revenue.**—From the date of Union (31st May, 1910) until the 31st March 1913, after which date the *Financial Relations Act*, No. 10 of 1913, became operative, the provincial expenditure was met from subsidies issued by the Union Government [see Section A (6) of this Chapter]. From the 1st April, 1913, until the 31st March, 1925, the Union Government contributed an annual subsidy amounting, broadly speaking, to one-half of the ordinary expenditure for the year, though the grant was curtailed from 1921. In the case of Natal and the Orange Free State a special annual grant was provided for by Section 5 (i) (*b*) of the Act above mentioned, under which each of these two Provinces received £100,000 in addition from the Union Treasury. Certain other sources of revenue within each Province were made available from the 1st April, 1913, particulars of which are contained in the tables relating to revenue collections (par. 3 hereunder).

Under the *Provincial Subsidies and Taxation Powers (Amendment) Act* of 1925, which became effective on the 1st April, 1925, the sources of provincial revenue were restricted to (i) a subsidy from the Union Government based on the number of pupils and students in average attendance at educational institutions within the Province; (ii) certain revenues collected by the Union Government and transferred to the Provinces, e.g. Transfer Duty, Native Pass Fees, Liquor Licences, and Trading, Professional, and Occupational Licences; (iii) a specified list of taxes or fees [see Section A (6) of this Chapter], in regard to which the Province has full legislative powers.

In the Transvaal a special source of revenue exists in the pass fees paid by natives. In the Cape, Natal, and Transvaal Provinces there are taxes on totalizators The Cape, Natal, and Orange Free State Provinces obtain revenue from an entertainments tax, and in the Natal, Transvaal, and Orange Free State Provinces some revenue is derived from auction dues. In the Cape Province a considerable revenue is obtained from the property tax. With these exceptions the revenue collected may be grouped under the main heads of (*a*) transfer duty, (*b*) liquor licences, (*c*) general licences, including trading and vocational licences, motor licences (except in the Transvaal, where the enactment was declared *ultra vires*), and various other licences, including those for dogs, game, and fisheries; and (*d*) miscellaneous departmental receipts, of which school and educational fees make up a considerable part, and hospital fees some further part.

The following statement gives a conspectus of legislation bearing upon the various forms of taxation adopted in each Province from time to time, as well as particulars of the incidence of each tax. Trading and other licences in operation in the different Provinces are enumerated in detail in Chapter XX (§ 8) of this *Year Book*.

PARTICULARS OF PROVINCIAL TAXATION.

Designation of Tax.	Particulars.
Auction Dues.....	*Natal.*—Addition of ¼ of transfer duty on land on every sale. Duty of ½ per cent. of purchase price on every sale of movable property by auction. Property of Imperial and Union Governments and of Provincial Administrations are exempted, and also sales of produce and dead meat held in public markets of boroughs or townships (*Ordinance No.* 13 *of* 1921 as amended by *No.* 1 *of* 1924). *Transvaal.*—1 per cent. on amount of each sale of fixed property or lease, and agricultural and pastoral produce (including meat), and 2½ per cent. on amount of each sale of all other produce (*Ordinance No.* 9 *of* 1923). *Orange Free State.*—1 per cent. on amount of each sale of immovable property and 2 per cent. on each sale of movable property (*Ordinance No.* 15 *of* 1921). Wool exempted under certain circumstances (*Ordinance No.* 13 *of* 1922).

PARTICULARS OF PROVINCIAL TAXATION—*continued.*

Designation of Tax.	Particulars.
Bachelor Tax†.....	*Transvaal.*—Poll tax of £1 on every adult unmarried male (other than a native) and every widower without minor child or children; persons paying house tax and students exempted (*Ordinance No.* 19 *of* 1917). *Ordinance No.* 16 *of* 1918 altered rate to £2 on those over twenty-five years old. Repealed by *Ordinance No.* 16 *of* 1920; but see "Poll Tax" below.
Betting and Racing Taxes (a) *Bookmakers*	*Cape.*—Annual registration fee of £5 and £50 per annum for business conducted at Tattersall's, £2. 2s. for each race meeting, and 5 per cent. of winnings on each race, or if at a racecourse, on winnings for race meeting; 5 per cent. of winnings of bets, payable by bettor (*Ordinance No.* 8 *of* 1921). *Natal.*—½ per cent. of winnings on each day; ½ per cent. of winnings of each bet, payable by bettor (*Ordinance No.* 17 *of* 1922). *Transvaal.*—5 per cent. of gross losings, to be paid by bookmaker, in certain cases 2½ per cent. (*Ordinance No.* 26 *of* 1925).
(b) *Totalizators*.....	*Cape.*—40 per cent. of amount of commission received by licence-holder: commission of latter must not exceed 10 per cent. of gross takings (*Ordinance No.* 8 *of* 1914). *Natal.*—6¼ per cent. of total amount paid in, 3 per cent. when total is less than £1,000 (*Ordinance No.* 12 *of* 1918 as amended by *No.* 7 *of* 1921). *Transvaal.*—4½ per cent. of gross takings and 2 per cent. on undistributed profits (*Ordinance No.* 4 *of* 1921).
(c) *Admission to Race-courses*	*Transvaal.*—20 per cent. of all payments for admission to a racecourse (*Ordinance No.* 18 *of* 1917).
Companies (Provincial) Tax	*Cape.*—1s. for every £100 of market value of paid-up share or debenture capital on all companies registered or carrying on business in the Province. Where the company carries on business outside the Province, the taxable capital is proportioned to the extent of its business in the Province. (*Ordinance No.* 17 *of* 1920). *Transvaal.—Financial Companies:* 1s. for each £1 of dividend distributed. *Other Companies:* 6d. for each £1 of taxable income. Minimum £5 annually. (*Ordinance No.* 8 *of* 1923 as amended by *No.* 23 *of* 1925).
Persons and Companies Tax.	*Orange Free State.—Persons:* £1 on all married adults (excluding married females) and in addition 20 per cent. of income tax payable in previous year in respect of income derived from sources within the Province, and in case of unmarried persons, 50 per cent. additional. £1 on unmarried persons not income tax payers. Widowers, widows, and divorced persons supporting minor children, and an unmarried person who is the sole support of a parent, are regarded as married. The tax is applicable to all income tax payers deriving income from the Province, whether resident in the Province or not. *Companies:* £5 on a company whose taxable income derived from sources within the Province is less than £200. *Other Companies:* 6d. for every £1 of taxable income derived from sources within the Province. *Exemptions* in cases of females whose taxable income is less than £100, students, natives, coloured persons, lepers, lunatics, and indigents, and in cases of taxable income derived from mining, and taxable income of insurance companies which is distributed among policy holders (*Ordinance No.* 12 *of* 1925).
Crayfish Canning Profits Tax†	*Cape.*—10 per cent. of the profits of any person carrying on the business of crayfish canning within the Province. (*Ordinance No.* 22 *of* 1921, repealing *Ordinance No.* 18 *of* 1920, which imposed a tax of 3 per cent. on 80 per cent. of gross turnover of companies carrying on business of canning crayfish within the Province).
*Education Tax**†	*Orange Free State.—Male adults, Companies, Associations, and Societies:* £1 on the first £100 of taxable income, 15s. on the second £1^ and a uniformly increasing rate on each successive £100 of taxable income beginning at 1d. in the £1 and increasing for each £100 by ½d. until a maximum rate of 1s. is reached at a taxable income of £4,600, above which a uniform rate of 1s. is charged. *Unmarried females:* 15s. on first £100, 10s. on second, and same rates as in the case of males above £200 (*Ordinance No.* 11 *of* 1921. Repealed by *Ordinance No.* 12 *of* 1925, which imposed a "Persons and Companies' Tax.")
Employers' Tax.....	*Transvaal.*—£1 for every person over the age of 16 above eight employed by any individual company, partnership or institution having a taxable income, children of employer excluded. Hospitals, ecclesiastical, charitable and educational institutions, and local authorities are exempt (*Ordinance No.* 8 *of* 1922).
Entertainment Tax.....	*Cape.*—Tax for every payment not exceeding 6d., 1d.; 1s. 6d., 2d.; 3s., 3d.; 5s., 6d.; 7s. 6d., 9d.; 10s., 1s. Exceeding 10s., tax is 1s. for every succeeding 10s. or part thereof (*Ordinance No.* 5 *of* 1918). *Natal.*—Tax for every payment not exceeding 6d., 1d.; 1s., 2d.; 1s. 6d., 3d.; 2s., 4d.; 2s. 6d., 5d.; 3s., 6d.; 4s., 9d.; 5s., 1s. Exceeding 5s., tax is 6d. for every succeeding 2s. 6d. or part thereof (*Ordinance No.* 11 *of* 1917, amended by *No.* 9 *of* 1920 and *No.* 7 *of* 1921). *Orange Free State.*—Tax for every payment not exceeding 6d., 1d.; 1s., 2d.; 1s. 6d., 3d.; 2s., 4d.; 3s., 6d.; 5s., 1s.; 7s. 6d., 1s. 6d.; 12s. 6d., 2s. Exceeding 12s. 6d., tax is 2s. 6d. for first 12s. 6d. and 2s. for every succeeding 10s. or part thereof, with certain exemptions where proceeds are devoted to charitable and educational purposes (*Ordinance No.* 6 *of* 1917, amended by *No.* 6 *of* 1921 and *No.* 9 *of* 1925). *Ordinance No.* 6 *of* 1922, added that in certain circumstances the tax might take the form of a lump sum, based on gross takings; the amount of the tax to be 15 per cent. of the gross takings.

* Compare Transvaal Poll Tax and Cape and Transvaal Companies Tax. † Repealed.

PARTICULARS OF PROVINCIAL TAXATION—*continued.*

Designation of Tax.	Particulars.
Betting and Racing Taxes (continued)—	
*Excess Profits Tax**.....	*Transvaal.*—1/5th of the excess profits duty as assessed under the *Income Tax Act*, 1917, imposed for one year (*Ordinance No.* 22 *of* 1917).
*Gold Profits (Provincial) Tax**	*Transvaal.*—1 per cent. on profits derived from the production of gold where the profits exceeded 10 per cent., but did not exceed 15 per cent of the gross revenue, and 1/10th of 1 per cent. additional tax for each 1 per cent, profit above 15 per cent. to a maximum of 4 per cent. when the percentage of profits to gross revenue amounted to 45 per cent. (*Ordinance No.* 14 *of* 1918). Lapsed in terms of Union Act No. 5 of 1921 on 31st March, 1922.
*House Tax**.....	*Transvaal.*—5s. per room on all occupied dwelling-houses excluding hospitals, boarding-houses, or hostels of schools, and occupied exclusively by natives, or by widows or single women not liable to income tax. (*Ordinance No.* 19 *of* 1917 as amended by *Ordinance No.* 16 *of* 1918). Repealed by *Ordinance No.* 16 *of* 1920.
Immovable Property Tax.	*Cape.*—½d. per £1 of the amount of the taxable value of all immovable property. Certain exemptions, chiefly relating to public bodies. (*Ordinance No.* 6 *of* 1918).
*Increment Value Duty**..	*Transvaal.*—5 to 25 per cent. on profit accruing from sale, cession, exchange donation, grant, or any other disposal of fixed property. A rebate of 2½ per cent. for each year from date of acquisition (*Ordinance No.* 5 *of* 1919). Repealed by *Ordinance No.* 7 *of* 1920.
Motor Tax.....	*Cape.*—See "Wheel Tax" (below).
Native Pass Fees.....	*Transvaal.*—2s. per head per month, payable by employer, on male natives over age of 14, in labour districts; outside labour districts 1s. payable by native (*Proclamation No.* 18 *of* 1903 *and Act No.* 10 *of* 1913).
Poll Tax.....	*Transvaal.*—£1. 10s. on all married adults, and in addition 15 per cent. of income tax payable in previous year in respect of income derived from sources in the Province, and in case of unmarried persons, 50 per cent. more. £1. 10s. on unmarried persons under twenty-five not income tax payers. The tax is applicable to all income tax payers deriving income from the Province, whether resident in the Province or not. Widowers, widows, and divorced persons supporting minor children, and an unmarried person who is sole support of a parent, are regarded as married. The application to natives was declared *ultra vires* (*Ordinance No.* 7 *of* 1921 as amended by *Ordinances No.* 9 *of* 1922 and *No.* 15 *of* 1925). *Orange Free State.*—See the "Persons and Companies Tax" above.
Transfer Duty.....	*Cape.*—2 per cent. (*Act No.* 5 *of* 1884 as amended by *Act No.* 11 *of* 1913). *Natal.*—2 per cent. (*Law No.* 5 *of* 1860, as amended by *Law No.* 20 *of* 1865, *Law No.* 19 *of* 1883, *Law No.* 19 *of* 1884, *Law No* 5 *of* 1890, *Law No* 6 *of* 1891, *Act No.* 7 *of* 1903, *Act No.* 23 *of* 1907, *Act No.* 31 *of* 1908, *Act No.* 11 *of* 1909, *Act No.* 12 *of* 1909, *Act No.* 11 *of* 1913). *Transvaal.*—2 per cent. Leases liable for 1½ per cent (*Proclamation No.* 8 *of* 1902 as amended by *Ordinance No.* 14 *of* 1905 and *Act No* 28 *of* 1919). *Orange Free State.*—2 per cent. (*Ordinance No.* 12 *of* 1906 as amended by *Act No.* 30 *of* 1908 and *Act No.* 11 *of* 1913). In all Provinces duty is payable within six months of date of contract thereafter interest at rate of 12 per cent. per annum on amount of duty becomes payable.
Wheel Tax.....	*Cape.*—On motor cars, 1,500 lb. or under, £3; 2,500 lb., £4; 4,000 lb., £6; 6,000 lb., £10; over 6,000 lb., £20. Motor cycle, £1. Side car, £1 (*Ordinance No.* 9 *of* 1914, as amended by *No.* 3 *of* 1922.) *Natal.*—On every motor-car lorry, and traction engine not exceeding 1,500 lb., 10s.; 2,000 lb., 15s.; exceeding 2,000 lb., 20s. per wheel; on every motor cycle 5s. per wheel; on other vehicles 2s 6d. per wheel (*Ordinance No.* 13 *of* 1918). *Ordinance No.* 8 *of* 1921 excludes motors from Wheel Tax, but imposes, in addition to registration fee, taxes of £1 on motor bicycles, or 25s. with trailer or sidecar, and between £4 to £12 (amended to £13 by *Ordinance No.* 12 *of* 1923) on motor-cars (£7 tax in addition to compounding fee). **Transvaal.*—2s. 6d. for each bicycle or tricycle; on other vehicles 7s. 6d. for each wheel, for year 1916–17 (not renewed) (*Ordinance No.* 11 *of* 1916). *Orange Free State.*—2s. 6d. per wheel on every vehicle, 9d. per wheel on bicycles (*Ordinance No.* 11 *of* 1917). Additional 7s. 6d. per wheel on motor-cars, motor bicycles, or side-car, 1s. 3d. per wheel on bicycles and 2s. 6d. per wheel on other vehicles (*Ordinance No.* 9 *of* 1921).

* Repealed.

2. **Total Revenues of Provinces.**—The subjoined tables give (i) the total amount of the Union Government subsidy, and (ii) the total revenue collected in the case of each Province from the year 1910–11 (1st April to 31st March each year).

(i) SUBSIDIES OF UNION GOVERNMENT TO PROVINCES—FINANCIAL YEARS 1910-11 TO 1923-24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
Average 1910-11* to 1914-15	942,268	427,435	1,094,820	396,226	2,860,749
Average 1915-16 to 1919-20	1,085,296	408,151	841,588	406,682	2,741,717
1920-21	1,701,000	621,999	1,539,000	615,999	4,477 998
1921-22	1,758,000	639,999	1,635,999	648,000	4,681,998
1922-23	1,569,890	563,032	1,456,936	577,408	4,167,266
1923-24	1,622,636	589,239	1,496,894	597,869	4,306,638

* Ten months.

(ii) REVENUE COLLECTIONS OF EACH PROVINCE—FINANCIAL YEARS 1913-14 TO 1923-24.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
Average 1913-14 to 1914-15	361,268	109,204	564,774	138,392	1,173,638
Average 1915-16 to 1919-20	567,911	180,511	965,209	242,423	1,956,054
1920-21	1,227,862	318,687	1,693,217	357,000	3,596,766
1921-22	1,152,872	359,320	1,873,625	352,333	3,738,150
1922-23	1,261,638	413,219	1,523,167	363,419	3,561,443
1923-24	1,403,851	426,936	1,687,338	400,288	3,918,413

3. **Details of Revenue Collections and Total Revenue.**—The subjoined tables give (i) the total sum under each head of revenue collected for all Provinces during five financial years (1st April to 31st March) from the coming into operation of the *Financial Relations Act*, No. 10 of 1913, together with revenue provided by the Union Government subsidy; and (ii) details of ordinary revenue received by each Province for the same period.

(i) DETAILS OF ORDINARY PROVINCIAL REVENUE, ALL PROVINCES, 1919-20 TO 1923-24.

Classification.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.
	£	£	£	£	£
Revenue Collections—					
Transfer Duty	969,162	947,127	576,569	562,128	557,383
Licences, Liquor	627,965	126,621	132,132	1,005,145	1,053,324
Licences, General		666,148	801.216		
Departmental Receipts (Educational and Hospital Fees, etc.)	251,513	306,456	349,169	350,204	422,443
Pass Fees, Natives (Transvaal)	352,457	352,037	335,555	338,669	350,236
Entertainment Tax (Cape, Natal, Orange Free State)	85,406	94,611	104,094	97,654	99,683
Racing Taxes (Cape, Natal, and Transvaal)	159,230	179,720	231,927	212,951	194,415
Auction Dues (Orange Free State, Natal, and Transvaal)	50,559	62,343	32,502	45,097	81,083
Poll Tax (Transvaal)	—	—	489,955	364,840	342,711
Gold Profits Tax (Transvaal)	391,243	281,422	267,204	*Dr.* 1,216	—
Miscellaneous Taxes (Transvaal)	237,395	270,863	34,768	8,384	4,311
Provincial Property Tax (Cape)	196,587	193,547	188,886	202,378	206,810
Corporation and Company Tax (Cape and Transvaal)	—	34,525	18,753	25,755	197,944
Wheel Tax (Natal and Orange Free State)	36,415	39,379	48,098	51,940	55,213
Education Tax (Orange Free State)	—	—	77,376	107,731	115,885
Fines and Forfeitures	47,202	41,967	49,946	17,598	20,156
Employers' Tax (Transvaal)	—	—	—	172,185	157,781
School Board Revenue (Cape)	—	—	—	—	59,035
TOTAL COLLECTIONS.....£	3,405.134	3,596,766	3,738,150	3,561,443	3,918,413
UNION GOVERNMENT SUBSIDY.....£	3,653,581	4,477,998	4,681,998	4,167,266	4,978,639
TOTAL REVENUE.....£	7,058,715	8,074,764	8,420,148	7,728,709	8,897,052

* Including £672,000 advances from Loan Account.

(ii) DETAILS OF ORDINARY PROVINCIAL REVENUE IN EACH PROVINCE, 1919–20 TO 1923–24.

(*a*) CAPE OF GOOD HOPE.

Heads of Revenue.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£
Revenue Collections—					
Transfer Duty	422,969	397,208	215,880	224,701	222,542
Licences, Liquor	48,682	47,583	49,407	47,332	65,417
Licences, Trade and Vocational, Motor, Dog, Game, etc	211,435	358,436	439,577	519,460	524,080
Tax on Totalizator and Betting	20,190	29,520	38,041	41,067	37,780
Tax on Entertainments	58,218	62,171	61,346	56,008	56,650
Fines and Forfeitures	4,161	3,700	4,108	4,245	6,682
Departmental Receipts	52,567	101,172	136,874	140,692	197,442
Provincial Property Tax	196,587	193,547	188,886	202,378	206,810
Corporation and Company Tax	—	34,525	18,753	25,755	27,413
School Board Revenue (under Ordinance No. 19 of 1923)	—	—	—	—	59,035
ALL REVENUE COLLECTIONS...	1,014,809	1,227,862	1,152,872	1,261,638	1,403,851
Union Government Subsidy [Sect. 5 (1), Act No. 10, 1913]	1,444,000	1,701,000	1,758,000	1,569,890	1,622,636
Advances from Loan Account	—	—	—	—	642,000
TOTAL.....£	2,458,809	2,928,862	2,910,872	2,831,528	3,668,487

(*b*) NATAL.

Head of Revenue.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£
Revenue Collections—					
Transfer Duty	116,717	121,805	90,179	81,121	83,508
Licences, Liquor	53,562	2,658	2,764	3,010	3,135
Licences, General		56,335	98,259*	120,882*	129,991*
Tax on Entertainments	21,488	25,043	33,509	32,636	34,925
Fines and Forfeitures	2,433	3,514	3,707	1,903	2,957
Racing Taxes	21,460	23,337	31,440	50,701	49,517
Wheel Tax	17,405	20,038	9,605	8,195	8,438
Departmental Receipts (Education, Hospital Fees, etc.)	43,988	65,957	78,044	85,015	82,835
Auction Dues	—	—	11,813	29,756	31,630
ALL REVENUE COLLECTIONS...	277,053	318,687	359,320	413,219	426,936
Union Government Subsidy [Sect. 5 (1), Act No. 10, 1913]	405,083	497,999	512,999	433,032	459,239
Union Government Special Grant [Sect. 5 (1) (*b*), Act No. 10, 1913]	100,000	100,000	100,000	100,000	100,000
Union Government Special Grant in lieu of Licences	26,912	24,000	27,000	30,000	30,000
Advance from Loan Account	—	—	—	—	10,000
TOTAL.....£	809,048	940,686	999,319	976,251	1,026,175

* Including motor-car registration fees.

(ii) DETAILS OF ORDINARY PROVINCIAL REVENUE IN EACH PROVINCE, 1919–20 TO 1923–24—*continued.*

(*c*) TRANSVAAL.

Head of Revenue.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£
Revenue Collections—					
Transfer Duty	262,406	267,274	202,865	187,041	173,374
Licences, Liquor	70,954	64,551	67,522	232,491	242,405
Licences, General	184,336	204,350	183,228		
Poll Tax	—	—	489,955	364,840	342,711
Departmental Receipts (Education, Hospital Fees, etc.)	86,292	94,056	89,949	90,238	100,796
Native Pass Fees	352,457	352,037	335,555	338,669	350,236
Miscellaneous Taxes	237,395	270,863	34,768	8,384	4,311
Racing Taxes	117,580	126,863	162,446	121,183	107,118
Fines and Forfeitures	37,504	31,801	40,133	9,352	8,388
Gold Profits Tax	391,243	281,422	267,204	*Dr.* 1,216	—
Employers' Tax	—	—	—	172,185	157,781
Companies Tax	—	—	—	—	170,531
Auction Sales Tax	—	—	—	—	29,687
ALL REVENUE COLLECTIONS...	1,740,167	1,693,217	1,873,625	1,523,167	1,687,338
Union Government Subsidy [Sect. 5 (1), Act No. 10, 1913]	1,167,586	1,539,000	1,635,999	1,456,936	1,496,895
Advance from Loan Account	—	—	—	—	10,000
TOTAL.....£	2,907,753	3,232,217	3,509,624	2,980,103	3,194,233

(*d*) ORANGE FREE STATE.

Head of Revenue.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£
Revenue Collections—					
Transfer Duty	167,070	160,840	67,645	69,265	77,959
Licences, Liquor	12,495	11,829	12,439	14,146	14,550
Licences, General	46,501	47,027	80,152	67,824	73,746
Departmental Receipts	68,666	45,271	44,302	34,259	41,370
Auction Dues	50,559	62,343	20,689	15,341	19,766
Fines and Forfeitures	3,104	2,952	1,998	2,098	2,129
Wheel Tax	19,010	19,341	38,493	43,745	46,775
Entertainment Tax	5,700	7,397	9,239	9,010	8,108
Education Tax	—	—	77,376	107,731	115,885
ALL REVENUE COLLECTIONS...	373,105	357,000	352,333	363,419	400,288
Union Government Subsidy [Sect. 5 (1), Act No. 10, 1913]	410,000	515,999	548,000	477,408	497,869
Special Grants by Union Government [Sect. 5 (1) (*b*), Act No. 10, 1913]	100,000	100,000	100,000	100,000	100,000
Advance from Loan Account	—	—	—	—	10,000
TOTAL.....£	883,105	972,999	1,000,333	940,827	1,008,157

§ 3. Ordinary Expenditure of Provinces.

1. **Classification of Provincial Expenditure.**—The tables contained in this section give particulars of ordinary expenditure from 1910 in each Province and in all Provinces under the main heads of (i) General Administration, comprising miscellaneous expenditure on various provincial services, (ii) Education in respect of which 70 per cent. of the total expenditure of the Provinces is incurred, (iii) Hospitals and Poor Relief, and (iv) Roads, Bridges, and Works. Expenditure prior to the 1st April, 1913, was covered by grants of the Union Government, and from that date has been met in each case from the Provincial revenues derived from the sources described in the preceding section of this Chapter.

Chapter II gives particulars as to the functions of Provincial Administrations and the various services for which the Administrations are responsible.

2. **Total Expenditure and Expenditure per Head.**—The tables given below contain particulars as to the total ordinary expenditure in each Province from 1910, and the expenditure per head of the mean total population and the mean European population:—

ORDINARY EXPENDITURE OF THE PROVINCES, AND EXPENDITURE PER HEAD OF THE POPULATION, 1910–11 TO 1923–24.

(i) Total Ordinary Expenditure.

Period.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
Average, 1910–11* to 1914–15	1,073,092	435,219	1,270,582	425,601	3,204,494
Average, 1915–16 to 1919–20	1,616,768	584,622	1,756,654	627,996	4,586,040
1920–21	2,939,559	1,024,120	3,366,552	1,087,025	8,417,256
1921–22	3,314,476	991,812	3,436,638	1,076,356	8,819,282
1922–23	3,260,923	973,086	3,272,862	999,441	8,506,312
1923–24	3,760,005	1,029,628	3,373,242	1,012,876	9,175,751

* Ten Months.

(ii) Average Expenditure per Head of Mean Population.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		All Provinces.	
	Total Population.	European Population.	Total Population.	European Population.	Total Population.	European Population.	Total Population.	European Population.	Total Population.	European Population.
	s. d.	£ s. d.	s. d.	£ s. d.	s. d.	£ s. d.	s. d.	£ s. d.	s. d.	£ s. d.
Average, 1910–11 to 1914–15	8 3	1 16 4	7 1	4 4 4	14 8	2 18 5	15 9	2 8 5	10 6	2 9 1
1915–16 to 1919–20	11 10	2 11 10	8 8	4 15 0	18 0	3 10 3	21 2	3 8 10	13 9	3 3 11
1920–21	21 4	4 11 2	14 7	7 13 4	32 10	6 5 11	35 1	5 16 3	24 7	5 12 3
1921–22	23 9	5 1 9	13 10	7 4 4	32 10	6 6 2	34 2	5 14 1	25 5	5 15 10
1922–23	23 1	4 18 5	13 4	6 16 10	30 7	5 17 0	31 1	5 4 3	24 1	5 9 4
1923–24	26 4	5 12 3	13 11	7 0 11	30 11	5 18 4	30 11	5 4 8	25 7	5 16 2

3. **Classified Summary of Ordinary Expenditure.**—The subjoined tables give summaries of the total ordinary expenditure of the four Provincial administrations from 1910–11 :—

CLASSIFIED ORDINARY EXPENDITURE OF THE PROVINCES, 1910-11 TO 1923-24.

Period.	General Administration.	Education.	Hospitals and Poor Relief.	Roads, Bridges, Works.	Refund of Revenue.	Total.
			(*a*) ALL PROVINCES.			
Average—	£	£	£	£	£	£
1910–11*—1914–15...	122,185	1,885,127	294,742	902,436	4	3,204,494
1915–16—1919–20....	273,456	3,221,191	438,562	652,771	60	4,586,040
1920–21.....	471,625	5,982,989	812,055	1,150,389	198	8,417,256
1921–22.....	424,064	6,677,136	831 599	886,314	169	8,819,282
1922–23.....	429,735	6.547 093	747,627	781.701	156	8,506 312
1923–24.....	464,123	7,098,551	756,200	855,732	1,145	9,175,751
			(*b*) CAPE OF GOOD HOPE.			
Average—	£	£	£	£	£	£
1910–11*—1914–15...	45 457	781,979	92,814	152,842	—	1,073,092
1915–16—1919–20....	143.234	1,224,945	123,810	124,779	—	1,616,768
1920–21.....	231,165	2,003,567	259,179	445,648	—	2,939,559
1921–22.....	208,060	2,450,629	274,348	381,439	—	3,314,476
1922–23.....	212.675	2,514,412	252,804	281,032	—	3 260,923
1923–24.....	223,796	3,016,693	240,231	279,285	—	3,760,005
			(*c*) NATAL.			
Average—	£	£	£	£	£	£
1910–11*—1914–15...	20,054	172,426	33.894	208.841	4	435,219
1915–16—1919–20....	35,433	308,806	54,840	185,483	60	584,622
1920–21.....	72,686	612,854	108.119	230,263	198	1,024,120
1921–22.....	62,364	638,724	104,997	185,558	169	991,812
1922–23.....	76,446	605.320	98,852	192,312	156	973,086
1923–24.....	87,964	634,079	101,378	205,062	1,145	1,029,628
			(*d*) TRANSVAAL.			
Average—	£	£	£	£	£	£
1910–11*—1914–15...	41,388	676,115	149,350	403,729	—	1,270,582
1915–16—1919–20....	69.908	1 203,158	238,828	244,760	—	1,756,654
1920–21.....	129 034	2,488,019	406,307	343,192	—	3,366.552
1921–22.....	117,079	2,677,318	417,476	224,765	—	3,436.638
1922–23.....	106.276	2,598.663	366 968	200,955	—	3,272,862
1923–24.....	113,056	2,614,215	383,908	262,063	—	3,373,242
			(*e*) ORANGE FREE STATE.			
Average—	£	£	£	£	£	£
1910–11*—1914–15...	15,286	254,607	18,684	137,024	—	425,601
1915–16—1919–20....	24,881	484,282	21,084	97,749	—	627.996
1920–21.....	38,740	878,549	33.450	131,286	—	1,087,025
1921–22.....	36,561	910,465	34,778	94,5 2	—	1,076,356
1922–23.....	34,338	828,698	29 003	107.402	—	999,441
1923–24.....	39,307	833,564	30,683	109,322	—	1,012,876

* From 1st June, 1910.

4. **General Administration.**—Particulars are given below for each financial year (1st April to 31st March) since the establishment of Union of ordinary expenditure on the general administration of the four Provinces, including all ordinary services not covered by the three other main heads of Provincial ordinary expenditure, viz., Education, Hospitals and Poor Relief, and Roads and Works.

PROVINCIAL ORDINARY EXPENDITURE—GENERAL ADMINISTRATION, 1910-11 TO 1923-24.

Period.	Salaries and Allowances.	Executive Committee and Provincial Council.	Transport.	Miscellaneous.	Fish, Game, Vermin, Weeds.	Total.
			(*a*) ALL PROVINCES.			
Average—	£	£	£	£	£	£
1910-11*—1914-15...	74,054		4,335	30,296	13,500	122,185
1915-16—1919-20....	95,269	24,221	9,495	124,299	20,172	273,456
1920-21.....	187,090	20,994	14,409	195,653	53,479	471,625
1921-22.....	173,513	26,415	13,868	170,859	39,409	424,064
1922-23.....	163,544	26 290	15,159	179,482	45,260	429,735
1923-24.....	156,954	23,263	15,417	224,987	43,502	464,123
			(*b*) CAPE OF GOOD HOPE.			
Average—	£	£	£	£	£	£
1910-11*—1914-15...	16,925	6,320	1,941	17,291	2,980	45,457
1915-16—1919-20....	37,961	7,848	4,371	80,343	12,711	143,234
1920-21.....	85,084	4,580	6,606	99,991	34,904	231,165
1921-22.....	76,188	7,855	6,951	92,528	24,538	208 060
1922-23.....	70 818	8.002	7,320	93,128	33 407	212,675
1923-24.....	64,645	7,870	6,688	113,377	31,216	223,796
			(*c*) NATAL.			
Average—	£	£	£	£	£	£
1910-11*—1914-15...	9,046	3,970	224	3,819	2,995	20,054
1915-16—1919-20....	13,665	4,701	853	12,556	3,658	35,433
1920-21.....	23,767	4,830	2,229	33,568	8,292	72,686
1921-22.....	22,789	4,877	2,108	26,836	5,754	62,364
1922-23.....	21,637	4,900	1,805	44,489	3,615	76,446
1923-24.....	22,155	3,201	2,083	56,835	3,690	87,964
			(*d*) TRANSVAAL.			
Average—	£	£	£	£	£	£
1910-11*—1914-15...	19,228	5,378	1,927	7,426	7,429	41,388
1915-16—1919-20....	28,620	7,017	3,130	27,340	3,801	69,908
1920-21.....	55,207	6,663	3,907	54,090	9,167	129,034
1921-22.....	53,035	8,713	3,024	44,781	7,526	117,079
1922-23.....	50,694	8.315	4,713	35,007	7,547	106,276
1923-24.....	50,263	7,359	4,726	42,636	8,072	113,056
			(*e*) ORANGE FREE STATE.			
Average—	£	£	£	£	£	£
1910-11*—1914-15...	13,187		243	1,760	96	15,286
1915-16—1919-20....	15,023	4,655	1,141	4,060	2	24,881
1920-21.....	23,032	4,921	1,667	8,004	1,116	38,740
1921-22.....	21,501	4,970	1,785	6,714	1,591	36,561
1922-23.....	20,395	5,073	1,321	6,858	691	34,338
1923-24.....	19,891	4,833	1,920	12,139†	524	39,307

* From 1st June, 1910. † Includes £4,897 Loan Charges.

5. **Expenditure of Provinces on Education.**—In accordance with the provisions of Section 85 (iii) of the *South Africa Act*, for a term of five years (1910–15) and thereafter until otherwise determined by Parliament, education, other than higher education (for which the Union Government is responsible) has been placed under the control of the

Provincial administrations. No legislation has been introduced to alter this administrative arrangement, and expenditure on education forms by far the largest item of expenditure in the Provinces. The subjoined tables give for all Provinces the ordinary expenditure on education for each financial year (1st April to 31st March) since the establishment of Union, and the distribution of expenditure under main headings in each Province for the same period. Further details in respect of expenditure on education are given in Chapter IV.

PROVINCIAL ORDINARY EXPENDITURE—EDUCATION (OTHER THAN HIGHER EDUCATION), 1910–11 TO 1923–24.

Period.	Administration and Inspection.	Training of Teachers.	Schools.	General.	Total.
			(*a*) ALL PROVINCES.		
Average—	£	£	£	£	£
1910–11*—1914–15....	94,527	85,363	1 635,861	69,376	1,885,127
1915–16—1919–20.....	184,282	142,604	2,774,507	119,798	3,221,191
1920–21.....	450,649	212,000	5,073,555	246,785	5,982,989
1921–22.....	453,091	244,019	5,713,243	266,783	6,677,136
1922–23.....	338,757	247,958	5,689 225	271,153	6,547,093
1923–24.....	290,416	246,517	6,278,687	282,931	7,098,551
			(*b*) CAPE OF GOOD HOPE.		
Average—	£	£	£	£	£
1910–11*—1914–15....	42,312	50,470	645,079	44,118	781,979
1915–16—1919–20.....	109,916	91 650	985 330	38 049	1,224,945
1920–21.....	319,761	133,796	1,533,578	16,432	2,003,567
1921–22.....	317,791	147,785	1,970,827	14,226	2,450,629
1922–23.....	232,561	146,639	2,120,388	14,824	2,514,412
1923–24.....	186,435	153,448	2,660,638	16,172	3,016,693
			(*c*) NATAL.		
Average—	£	£	£	£	£
1910–11*—1914–15....	9,373	4,414	158,594	45	172,426
1915–16—1919–20.....	16,743	6,952	264,333	20,778	308,806
1920–21.....	31,817	14,658	507,938	58,441	612,854
1921–22.....	34,707	14,472	527,856	61,689	638,724
1922–23.....	17,790	15,786	502,093	69,651	605,320
1923–24.....	17,713	15,282	530,320	70,764	634,079
			(*d*) TRANSVAAL.		
Average—	£	£	£	£	£
1910–11*—1914–15....	28,122	19,979	606,639	21,375	676,115
1915–16—1919–20.....	38,182	29,298	1,089,362	46,316	1,203,158
1920–21.....	69,151	42,857	2,264,990	111,021	2,488,019
1921–22.....	67,336	56,081	2,449,582	104,319	2,677,318
1922–23.....	62,061	60,774	2,377,486	98,342	2,598,663
1923–24.....	61,616	55,017	2,381,186	116,396	2,614,215
			(*e*) ORANGE FREE STATE.		
Average—	£	£	£	£	£
1910–11*—1914–15....	14,720	10,500	225,549	3,838	254,607
1915–16—1919–20.....	19,441	14,704	435,482	14,655	484,282
1920–21.....	29,920	20,689	767,049	60,891	878,549
1921–22.....	33,257	25,681	764,978	86,549	910,465
1922–23.....	26,345	24.759	689,258	88,336	828,698
1923–24.....	24,652	22,770	706,543	79,599	833.564

* Ten months.

6. **Expenditure on Hospitals and Poor Relief.**—Particulars are given in the subjoined tables in respect of all Provinces for each financial year (1st April to 31st March) since the establishment of Union and in respect of each Province for the same period as to ordinary expenditure on hospitals and poor relief. Further details in respect of these services are given in Chapters VII and VIII.

PROVINCIAL ORDINARY EXPENDITURE—HOSPITALS AND POOR RELIEF, 1910-11 TO 1923-24.

Period.	Salaries and Allowances.	Grants-in-Aid, Supplies, and Services.	Poor Relief.	Total.
		(*a*) ALL PROVINCES.		
Average—	£	£	£	£
1910-11*—1914-15.....	24,431	233,531	36,780	294,742
1915-16—1919-20.....	54,105	322,239	62,218	438,562
1920-21.....	142,380	570,306	99,369	812,055
1921-22.....	164,242	587,357	80,000	831,599
1922-23.....	158,242	508,436	80,949	747,627
1923-24.....	171,491	509,197	75,512	756,200
		(*b*) CAPE OF GOOD HOPE.		
Average—	£	£	£	£
1910-11*—1914-15.....	7,174	70,977	14,663	92,814
1915-16—1919-20.....	9,960	91,119	22,731	123,810
1920-21.....	19,988	189,025	50,166	259,179
1921-22.....	18,520	223,322	32,506	274,348
1922-23.....	13,823	202,934	36,047	252,804
1923-24.....	12,024	199,187	29,020	240,231
		(*c*) NATAL.		
	£	£	£	£
Average—				
1910-11*—1914-15.....	6,727	26,161	1,006	33,894
1915-16—1919-20.....	10,329	42,746	1,765	54,840
1920-21.....	19,116	86,666	2,337	108,119
1921-22.....	20,532	82,033	2,432	104,997
1922-23.....	20,319	76,097	2,436	98,852
1923-24.....	29,457	69,076	2,845	101,378
		(*d*) TRANSVAAL.		
Average—	£	£	£	£
1910-11*—1914-15.....	7,559†	128,501	13,290	149,350
1915-16—1919-20.....	33,816†	177,631	27,381	238,828
1920-21.....	103,276	269,635	33,396	406,307
1921-22.....	125,190	260,043	32,243	417,476
1922-23.....	124,100	213,241	29,627	366,968
1923-24.....	130,010	222,933	30,965	383,908
		(*e*) ORANGE FREE STATE.		
Average—	£	£	£	£
1910-11*—1914-15.....	2,971	7,892	7,821	18,684
1915-16—1919-20.....	—	10,743	10,341	21,084
1920-21.....	—	24,980	13,470	38,450
1921-22.....	—	21,959	12,819	34,778
1922-23.....	—	16,164	12,839	29,003
1923-24.....	—	18,001	12,682	30,683

* From 1st June, 1910.
† Rietfontein and Tzaneen Hospital only for years 1912-13 to 1917-18.

7. **Expenditure on Public Works and Roads.**—Particulars are given in the subjoined tables in respect of all Provinces, for each financial year (1st April to 31st March) since the establishment of Union, and in respect of each Province for the same period, as to

ordinary expenditure by Provincial administrations on Public Works, Roads and Bridges. Further details as to Roads and Bridges are given in Chapter XX.

PROVINCIAL ORDINARY EXPENDITURE—PUBLIC WORKS AND ROADS, 1910–11 TO 1923–24.

Period.	Super-vision.	Rents, Rates, Water, Insurance, Light, Furniture, etc.	Works.		Roads and Bridges.		Miscel-laneous.	Total.
			New.	Main-tenance.	New.	Main-tenance.		
				(*a*) ALL PROVINCES.				
Average—	£	£	£	£	£	£	£	£
1910–11*—								
1914–15.	27,022	96,880	237,789	62,296	170,599	307,366	484	902,436
1915–16—								
1919–20.	45,614	43,947	4,716	22,513	99,190	356,186	80,605	652,771
1920–21.....	84,186	7,891	3,803	21,004	146,945	509,936	37 ,624	1,150,389
1921–22.....	74,628	6,575	2,963	9,881	51,708	387,165	353,394	886,314
1922–23.....	65.900	8,704	1,667	8,337	61,278	336,153	299,662	781,701
1923–24.....	67,460	7,687	2,895	10.099	73,898	378,662	315,031	855,732
				(*b*) CAPE OF GOOD HOPE.				
Average—	£	£	£	£	£	£	£†	£
1910–11*—								
1914–15.	6,467	—	60,055	1,375	47,502	37,443	—	152,842
1915–16—								
1919–20.	8,788	—	363	1,374	12,938	40,500	60,816	124,779
1920–21.....	16,037	—	1,506	11,343	18,315	45,885	352,562	445,648
1921–22.....	14,071	—	1,713	2,726	13,486	40,366	309,077	381,439
1922–23.....	10,946	—	1,202	1,598	1,350	34,334	231,602	281,032
1923–24.....	10,909	—	1,098	1,089	3,249	37,901	225,039	279,285
				(*c*) NATAL.				
Average—	£	£	£	£	£	£	£	£
1910–11*—								
1914–15.	5,174	8,882	34,635	17,334	50,657	92,159	—	208,841
1915–16—								
1919–20.	12,703	4,957	2,170	5,643	43,277	116,731	2	185,483
1920–21.....	19,591	5,612	2,135	6,982	41,094	154,849	—	230,263
1921–22.....	20,461	4,570	1,037	5,139	1,139	153,212	—	185,558
1922–23.....	18,556	6,508	207	5,637	3,818	157,586	—	192,312
1923–24.....	17,490	5,561	1,754	7,063	11,045	162,149	—	205,062
				(*d*) TRANSVAAL.				
Average—	£	£	£	£	£	£	£‡	£
1910–11*—								
1914–15.	10,952	62,074	110,873	38,728	17,862	162,868	372	403,729
1915–16—								
1919–20.	13,534	27,770	710	14,282	12,176	169,941	6,347	244,760
1920–21.....	29,185	1,715	162	2,679	31,753	266,880	10,818	343,192
1921–22.....	22,721	1,405	213	2,016	13,213	159,277	25,920	224,765
1922–23.....	23,553	1,855	258	1,102	13,654	118,853	41,680	200,955
1923–24.....	25,305	1,834	43	1,947	26,442	152,244	54,248	262,063
				(*e*) ORANGE FREE STATE.				
Average—	£	£	£	£	£	£	£‡	£
1910–11*—								
1914–15.	4,429	25,924	32,226	4,859	54,578	14,896	112	137,024
1915–16—								
1919–20.	10,589	11,220	1,473	1,214	30,799	29,014	13,440	97,749
1920–21.....	19,373	564	—	—	55,783	42,322	13,244	131,286
1921–22.....	17,375	600	—	—	23,870	34,310	18,397	94,552
1922–23.....	12,845	341	—	—	42,456	25,380	26,380	107,402
1923–24.....	13,756	292	—	—	33,162	26,368	35,744	109,322

* From 1st June, 1910. † Subsidies to Divisional Councils. ‡ Chiefly Loan Charges.

8. **Provincial Appropriations.**—The following table gives a summary of the total appropriations of the various Provincial Councils in respect of expenditure for a period of two years subsequent to the period covered by the tables in the preceding paragraphs of this section, which contain only the audited and final figures :—

SUMMARY OF PROVINCIAL EXPENDITURE APPROPRIATIONS, 1924–25 TO 1925–26.

Heading.	1924–25.	1925–26.
	£	£
I. General Administration	243,148	259,701
II. Education	6,559,916	6,764,315
III. Hospitals and Charitable Institutions	790,562	823,915
IV. Roads, Bridges, and Local Works	851,339	910,782
V. Miscellaneous	65,782	68,674
VI. Interest and Redemption	695,256	821,070
TOTAL.....£	9,206,003	9,648,457

D. PUBLIC DEBT AND EXPENDITURE FROM LOANS.

1. **Public Debt of the Union.***—The table below gives particulars (i) of the total amount of the gross public debt of the Union, the amount of the sinking fund, and the net public debt at the close of each financial year (31st March) 1911 to 1924, and (ii) the amount of gross and net debt respectively per head of the mean total population and per head of the mean European population. Comparisons under this head with other Dominions are difficult to effect, because of the numerical preponderance of the coloured races in the Union. If it were possible to determine the relative economic position of the individual of the coloured races and the individual of the European race, it might be in reason to institute comparisons. The figures for the Union have, however, been given both for the mean total population, and the mean European population. The true means of comparison with other countries lies in figures some way between those given, probably in each case in an amount per head approximately half of that given in respect of the European population. Nevertheless, it is of interest to note the following amounts, representing for various countries the gross public indebtedness per head of the population :—

		£	s.	d.
New South Wales	at 30th June, 1924	100	10	3
Victoria	,, ,,	75	13	9
Queensland	,, ,,	109	8	9
South Australia	,, ,,	132	7	10
Western Australia	,, ,,	174	3	7
Tasmania	,, ,,	111	6	4
Commonwealth of Australia (i.e. The State Debts added to the Commonwealth Debt less Debts counted twice)	,, ,,	164	13	1
New Zealand (per head of European population)	at 31st March, 1924	164	8	5
Canada (£1 = $4·8665)	,, ,,	62	15	11

The system in the Union under which the responsibility for the whole of the Public Debt is vested in the Union Government, distinguishes it from that in Australia, where each State has separate responsibility, and where the Commonwealth debt forms only a

* A statement showing the position of the public debt at the establishment of the Union when it amounted to £116,036,978 (see paragraph 2 below), will be found in the sixth and previous issues of this *Year Book*.

small proportion of the whole. In any comparison with Canada also differences of provincial government, differences in regard to railways and other undertakings, have to be examined, without which comparison is likely entirely to mislead. Speaking generally, apart from differences in the elements of the population, the conditions in Australia and New Zealand most nearly approximate, and afford the readiest basis of comparison.

GROSS AND NET PUBLIC DEBT (ON 31st MARCH), 1911 TO 1925.

YEAR.	GROSS DEBT.	SINKING FUNDS.	NET DEBT.	GROSS DEBT PER HEAD.		NET DEBT PER HEAD.	
				Total Population.	European Population.	Total Population.	European Population.
	£	£	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1911...	114,236,969	5,054,620	109,182,349	19 3 1	89 12 11	18 6 2	85 13 7
1912...	117,260,534	5,780,246	111,480,288	19 6 0	90 5 5	18 7 0	85 16 5
1913...	117,828,994	6,269,194	111,559,800	19 0 11	89 0 1	18 0 8	84 5 5
1914...	126,296,250	6,930,611	119,365,639	20 1 1	93 12 11	18 19 1	88 10 1
1915...	138,210,778	7,382,961	130,827,817	21 11 4	100 12 6	20 8 4	95 5 0
1916...	150,832,734	7,981,801	142,850,933	23 2 9	107 17 4	21 18 3	102 3 2
1917...	154,582,673	8,588,213	145,994,460	23 6 3	108 12 4	22 0 5	102 11 8
1918...	160,436,840	9,322,065	151,114,775	23 16 0	110 15 11	22 8 4	104 7 2
1919...	166,367,869	9,144,035	157,223,834	24 16 7	113 2 8	23 9 4	106 18 4
1920...	173,904,818	9,856,196	164,048,622	25 10 9	116 8 0	24 1 10	109 16 1
1921...	178,607,939	11,153,198	167,454,741	25 16 3	117 13 11	24 4 0	110 6 11
1922...	191,784,936	11,575,502	180,209,434	27 5 8	124 9 1	25 12 9	116 18 10
1923...	199,685,868	12,505,627	187,180,241	27 18 8	126 17 6	26 3 8	118 18 7
1924...	208,232,528	11,389,625	196,842,903	28 13 3	129 18 0	27 1 11	122 15 10
1925...	214,332,683	12,312,319	202,020,364	29 0 10	131 8 6	27 7 6	123 17 6

2. **External and Internal Debt.**—Particulars are given below of the external and internal debt of the Union from 1910 to 1925, showing the amount of debt under each head, and the percentage of such amount in relation to the total debt :—

EXTERNAL AND INTERNAL DEBT, 1910 TO 1925.

DATE.	EXTERNAL DEBT.		INTERNAL DEBT.		TOTAL DEBT.
	Amount.	Per Cent. of Total Debt.	Amount.	Per Cent. of Total Debt.	
	£		£		£
31st May, 1910....	106,897,810	92·12	9,139,168	7·88	116,036,978
31st March, 1911.	103,950,241	91·00	10,286,728	9·00	114,236,969
,, 1912.	103,223,341	88·10	14,037,193	11·90	117,260,534
,, 1913.	102,762,700	87·22	15,066,294	12·78	117,828,994
,, 1914.	111,808,560	88·53	14,487,690	11·47	126,296,250
,, 1915.	123,306,421	89·22	14,904,357	10·78	138,210,778
,, 1916.	131,984,773	87·50	18,847,961	12·50	150,832,734
,, 1917.	131,328,802	84·96	23,253,871	15·04	154,582,673
,, 1918.	126,939,352	79·12	33,497,488	20·88	160.436,840
,, 1919.	125,074,173	75·18	41,293,696	24·82	166,367,869
,, 1920.	123,390,311	70·95	50,514,507	29·05	173,904,818
,, 1921.	123,059,063	68·89	55,548,876	31·11	178,607,939
,, 1922.	128,721,583	67·11	63,063,353	32·89	191,784,936
,, 1923.	131,656,404	65·93	68,029,464	34·07	199,685,868
,, 1924.	133,363,229	64·05	74,869,299	35·95	208,232,528
,, 1925.	139,156,701	64·92	75,175,982	35·08	214,332,683

3. **Particulars of Public Debt.**—The subjoined table gives particulars as to the public debt on the 31st March, 1925, showing the rate of interest in respect of each item of debt,

the nature of the security, the months when interest is payable in each year, the dates upon which the debt is redeemable, and where the debt in each case was floated :—

PARTICULARS AS TO THE PUBLIC DEBT OF THE UNION, 31st MARCH, 1925.

Rate of Interest.	Nature of Security.	Amount of Debt.	Months when Interest Payable.	When Debt Redeemable.	Where Floated.
Per cent.	CAPE OF GOOD HOPE—	£			
3	Stock.....	5,467,061	Feb. –Aug.	1933–43	London.*
3	,, ...	2,631,679	Feb.–May –Aug.–Nov.	1924–44	Cape Town.*
3½	,, ...	12,028,909	Jan. –July	1929–49	London.*
3½	,, ...	4,681,935	Jan. –July	1930–50	Cape Town.*
4	,, ...	7,776,531	April –Oct.	1916–36	London.*
4	,, ...	2,004,347	April –Oct.	1916–36	Cape Town.*
4	,, ...	1,420,800	May –Nov.	1918–48	Cape Town.
4½	Stock.....	54,111	Jan. –July	Not specified	Cape Town.
5	,, ...	333,699	April–Oct.	Not specified	Cape Town.
	TOTAL.....£	36,399,072			
	NATAL—				
3	Stock.....	6,000,000	Jan. –July	1929–49	London.
3½	,, ...	6,208,900	Feb. –Aug.	1934–44	London.
3½	,, ...	3,611,000	June –Dec.	1914–39	London.
4	,, ...	2,849,500	April –Oct.	1937	London.
4	,, ...	304,500	May –Nov.	1927	London.
4	Debentures.....	39,900	May –Nov.	1926	London.
	TOTAL.....£	19,013,800			
	TRANSVAAL AND ORANGE FREE STATE—				
3	Stock.....	35,000,000	May –Nov.	1923–53	London.
	TRANSVAAL—				
3	Stock.....	5,000,000	Jan. –July	1958	London.
	UNION—				
3½	Debentures.....	2,000,000	April –Oct.	1925–28	London.
3½	Stock.....	3,000,000	Jan. –July	1933–53	Union.
4	,, ...	3,000,000	Jan. –July	1933–53	Union.
4	,, ...	8,000,000	Mar. –Sept.	1943–63	London.
4½	Stock.....	2,082,500	Jan. –July	1920–25	London.
4½	Debentures.....	917,500	Jan. –July	1920–25	London.
4½	,, ...	8,384,000	June –Dec.	1925–45	London.
4½	Stock.....	1,649,900	Mar. –Sept.	1929–39	Union.†
5	,, ...	13,000,000	June –Dec.	1933–43	London.
5	,, ...	26,000,000	Mar. –Sept.	1929–39	Union.
5	,, ...	8,000,000	Jan. –July	1940–60	London.
5	,, ...	2,400,000	Jan. –July	1935	Union.
5	Debentures.....	1,500,000	April –Oct.	1929–47	London.
6	Stock.....	8,999,000	Feb. –Aug.	1927–32	Union.
6	,, ...	10,986,400	May –Nov.	1930–40	London.
	TOTAL.....£	99,919,300			
	TOTAL FUNDED DEBT..£	195,332,172			
	TEMPORARY LOANS—				
1½	Treasury Bills.....	810,000	Various dates.	Various dates	Union.
3	,, ...	1,067,100	,,	,,	Union.
4	,, ...	12,991,500	,,	,,	Union.
5	,, ...	15,126	,,	,,	Union.
4½	Union Loan Certificates	1,146,986	,,	,,	Union.
5	,,	2,969,800	,,	,,	Union.
	TOTAL FLOATING DEBT £	19,000,512			
	TOTAL DEBT.....£	214,332,684			

* These stocks were originally floated in London and Cape Town. Registers are held at each centre, and the stock is transferable between the two registers at the option of the holder.

† Free of Income and Super Taxes and Excess Profits Duty.

4. **Rates of Interest.**—Particulars are given below as to the rates of interest payable on loans of various classes on the 31st March, 1916, and at the close of each subsequent

year; together with the average rate per cent. on stock and debentures, on temporary loans, and on all loans combined:—

RATE OF INTEREST ON LOANS, 1916 TO 1925.

Rate of Interest.	31st March, 1916.	31st March, 1917.	31st March, 1918.	31st March, 1919.	31st March, 1920.
	£	£	£	£	£
Stock and Debentures—					
3	54,105,113	54,104,946	54,104,946	54,104,946	54,104,946
3½	26,650,761	26,650,761	26,650,761	26,548,711	26,547,111
3¾	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
4	36,888,475	36,746,563	35,670,914	35,507,874	35,361,572
4½	4,024,465	12,300,965	12,225,265	12,470,165	13,116,165
5	419,507	9,418,307	15,405,787	20,405,786	26,357,166
TOTAL £	125,088,321	142,221,542	147,057,673	152,037,482	158,486,960
Temporary Loans—					
Nil	—	—	—	—	—
2¾	—	—	—	—	—
3	—	—	—	—	—
3½	2,335,790	2,335,790	2,335,790	2,335,790	2,335,789
3¾ Discount	—	—	—	—	1,150,600
4	145,700	847,000	1,458,800	1,055,450	20,000
4½	—	46,200	67,500	72,200	2,961,100
4½	23,262,923	9,132,141	3,487,300	4,956,500	2,293,600
4¾ Discount	—	—	—	—	—
5	—	—	6,029,778	5,910,447	6,656,769
TOTAL £	25,744,413	12,361,131	13,379,168	14,330,387	15,417,858
GRAND TOTAL £	150,832,734	154,582,673	160,436,841	166,367,869	173,904,818
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Average Rates per Cent.—					
Stock and Debentures	3 9 6	3 12 7	3 13 8	3 14 0	3 15 7
Temporary Loans	4 8 2	4 5 6	4 8 2	4 10 1	4 9 2
All Loans	3 12 9	3 13 8	3 15 0	3 15 11	3 16 9

Rate of Interest.	31st March, 1921.	31st March, 1922.	31st March, 1923.	31st March, 1924.	31st March, 1925.
	£	£	£	£	£
Stock and Debentures—					
3	54,103,340	54,098,740	54,098,740	54,098,740	54,098,740
3½	26,531,011	28,530,744	28,530,744	28,530,744	28,530,744
3¾	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
4	35,270,972	35,219,288	35,045,650	27,430,789	25,395,577
4½	13,114,465	13,114,465	13,114,465	13,033,900	13,088,011
5	26,339,754	21,491,983	21,491,983	40,833,699	51,233,699
6	—	20,000,000	20,000,000	19,986,400	19,985,400
TOTAL £	158,359,542	175,455,220	175,281,582	186,914,272	195,332,171
Temporary Loans—					
Non-Interest Bearing	—	—	500,000	—	—
1¼	—	—	—	—	810,000
2¼	—	16,000	—	—	—
2¾	—	—	4,000,000	—	—
3	—	—	801,700	2,077,400	1,067,100
3½	2,335,790	336,789	309,325	22,500	—
3¾	—	—	—	19,500	—
4	—	1,061,900	13,116,186	14,918,200	12,991,500
4¼	10,200	—	—	—	—
4½	3,932,950	768,600	1,941,250	721,266	1,146,986
4¾	332,000	—	—	—	—
4¾ Discount	—	—	—	—	—
5	8,304,531	2,441,062	3,735,825	3,559,390	2,984,926
5¼	—	3,200,000	—	—	—
5¾	2,332,926	8,505,365	—	—	—
6¾ Discount	1,000,000	—	—	—	—
7 Discount	2,000,000	—	—	—	—
TOTAL £	20,248,397	16,329,716	24,404,286	21,318,256	19,000,512
GRAND TOTAL £	178,607,939	191,784,936	199,685,868	208,232,528	214,332,683
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Average Rate per Cent.—					
Stock and Debentures	3 15 7	3 19 10	3 19 5	4 1 11	4 2 11
Temporary Loans	5 2 5	5 3 9	3 17 4	4 1 8	4 0 5
All Loans	3 18 7	4 1 11	3 19 2	4 1 11	4 2 8

5. **Treasury Bills.**—The Union Government issues from time to time Treasury Bills for sums of £500 and over for fixed periods of six, nine, and twelve months, through the Secretary for Finance, Pretoria, the Civil Commissioner, Cape Town, and the Receivers of Revenue at Pietermaritzburg, Durban, Bloemfontein, East London, and Port Elizabeth. The bills are negotiable and are paid on or after the date of maturity with interest at the office from which they were obtained. Interest on twelve months' bills is payable half-yearly.

RATES OF INTEREST ON TREASURY BILLS AT CERTAIN DATES.

Description.	4th June, 1920.	9th July, 1920.	22nd Oct., 1920.	24th Feb., 1922.	21st April, 1922.	22nd Dec., 1922.	18th Dec., 1923.	1st April, 1925.
	%	%	%	%	%	%	%	%
6 months' bills.....	4¼	4½	4½	4	3½	3	3½†	—
9 „ „	4½	4¾	5	4½	4	Nil*	3¾†	—
12 „ „	4¾	5	5½	5	4½	4	4	4
90 days.....	—	—	—	—	—	2¼‡	3†‡	3‡

* Discontinued from 22nd December, 1922.
† Discontinued from 8th February, 1924.
‡ Discount.

6. **Annual Debt Charge.**—Particulars are given below of the amount of the annual debt charge in the Union, and the amount per head of the mean total population, and also of the European population, for seven years. The charge includes interest payments, cost of administration, and contributions to the sinking fund :—

ANNUAL DEBT CHARGE, 1918–19 TO 1924–25.

Heading.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	£	£	£	£	£	£	£
Debt Charge.....	6,719,992	6,911,030	7,315,879	7,786,542	8,456,010	8,529,930	8,864,314
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per head of mean total population.	1 0 1	1 0 4	1 1 2	1 2 2	1 3 8	1 3 6	1 4 0
Per head of European population. (mean)	4 11 5	4 12 6	4 16 5	5 1 1	5 7 5	5 6 5	5 8 8
Percentage of Revenue absorbed by Public Debt charges.....	Per cent. 30·73	Per cent. 25·70	Per cent. 24·65	Per cent. 26·95	Per cent. 34·84	Per cent. 32·3	Per cent. 28·43

7. **Prices of Government Stock.**—The subjoined table gives the prices of Government Stock for a period of eight years, calculated as the middle price between the highest and lowest prices in each year:—

UNION GOVERNMENT STOCK—MIDDLE PRICES, 1918 TO 1925.

Designation of Stock.	1918.*	1919.	1920.	1921.	1922.	1923.	1924	1925.
6 PER CENT—								
Union of South Africa Inscribed (1930–40).	—	—	—	—	103⅛	103	104½	104
Union Local Registered (1927–32).....	—	—	—	—	105	103½	104½	102½
5 PER CENT—								
Union Local Registered (1921–36).....	102¼	103½	97	98	102⅞	(*i*)	—	—
Union Local Registered (1929–39).....	—	102	94	88	98¾	99¼	100¾	100½
Union Local Stock, 1935.....	—	—	—	—	—	—	—	101
Union of South Africa Inscribed (1933–43)	—	—	—	—	—	99 1/16	100¼	101
Union of South Africa Inscribed (1940–60)	—	—	—	—	—	—	102	101½
Union of South Africa Inscribed (1945–75)	—	—	—	—	—	—	—	100½
4½ PER CENT—								
Cape of Good Hope.....	97	96	(*d*)	—	—	—	—	—
Cape of Good Hope Loan of 1879.....	95½	(*b*)	(*e*)	—	—	—	—	—
Natal, 1876.....	99½	(*c*)	(*f*)	—	—	—	—	—
Union Debentures (1920–25).....	92½	94½	91	91	98⅝	101	100½	100¼(*k*)
Union Inscribed (1920–25)	92½	93½	90	90	97⅝	100	100	100¼(*k*)
Union Local Registered (1929–39).....	—	101	93	93	98⅝	102 3/16	103	101⅜
4 PER CENT.—								
Union of South Africa Debentures (1919–24)	91½	93	91	93	98 9/16	99⅝	(*j*)	—
Union of South Africa 4 per cent. Consolidated Stock (1943–63).....	81	81¼	74	71	81⅛	85 11/16	88½	88
Cape Loan of 1881.....	92	89½	92½	94	(*g*)	—	—	—
Cape Loan of 1882 (1917–23) Bonds.....	91	93	92	93	99¼	(*h*)	—	—
Cape Ten-Year Debentures, 1917.....	(*a*)	—	—	—	—	—	—	—
Cape Loan of 1882 Stock (1917–23).....	91½	93¼	92	94	99½	(*h*)	—	—
Cape (1883) Inscribed, 1923.....	91½	93¼	91	94	99 5/16	(*i*)	—	—
Cape Consolidated Inscribed, 1916–36.....	82	83	79	78	85½	90⅛	92	91¼
Natal (1926) Debentures.....	—	91¼	86½	88	92½	96	96¾	97¼
Natal Consolidated Inscribed, 1927.....	88	90½	86½	88	94½	96½	97	98¼
Natal Consolidated Inscribed, 1937.....	81	82½	77	77	85⅝	90	91½	91¼
Natal Indian Immigration Trust Board, 1927	84	89½	87½	77	90⅜	96	97	97¼
3½ PER CENT.—								
Cape Consolidated Inscribed, 1929–49...	70½	71¾	66	63	73⅜	79	80	79½
Natal Inscribed, 1914–39.....	72½	75	68½	68	77⅜	83¾	84½	84⅓
Natal Consolidated, 1934–44.....	71½	73	66	65	75 1/16	80½	82	81½
3 PER CENT.—								
Cape Consolidated Inscribed, 1933–43....	64½	67½	61½	60	69¼	73¾	76	77½
Natal Consolidated Inscribed, 1929–49....	61½	63¾	58	57	65⅝	72	72½	72¾
Transvaal Guaranteed, 1923–53.....	69	67½	60½	64	73¼	76½	78¾	80¼
Transvaal Guaranteed, 1958.....	66	66	60	62	70	75	75½	77

* 1st January to 30th June.
(*a*) Redeemed October, 1917.
(*b*) Redeemed 1918.
(*c*) Redeemed 1919.
(*d*) Redeemed April, 1920.
(*e*) Redeemed December, 1918.
(*f*) Redeemed March, 1919.
(*g*) Redeemed June, 1922.
(*h*) Redeemed June, 1923.
(*i*) Redeemed December, 1923.
(*j*) Redeemed June, 1924.
(*k*) Redeemed July, 1925.

8. **Dates of Maturity of Funded Debt.**—The following table shows the dates of maturity of the funded debt of the Union, as it stood on the 31st March, 1925. The remoter date of maturity has been taken for loans in trust at 4½ per cent. and under, and the earlier date for loans above 4½ per cent.

FUNDED DEBT OF THE UNION, 31st MARCH, 1925—DATES OF MATURITY.

Date.	Amounts Payable.			Date.	Amounts Payable.		
	In London.	In South Africa.	Total.		In London.	In South Africa.	Total.
	£1,000	£1,000	£1,000		£1,000	£1,000	£1,000
Indefinite..	—	388	388	1939.....	3,611	1,650	5,261
1925.....	3,000	—	3,000	1940.....	8,000	—	8,000
1926.....	40	—	40	1943.....	5,467	—	5,467
1927.....	305	9,000	9,305	1944.....	6,209	2,632	8,841
1928.....	2,000	—	2,000	1945.....	8,384	—	8,384
1929.....	1,500	26,000	27,500	1948.....	—	1,421	1,421
1930.....	10,986	—	10,986	1949.....	18,029	—	18,029
1933.....	13,000	—	13,000	1950.....	—	4,682	4,682
1935.....	—	2,400	2,400	1953.....	35,000	6,000	41,000
1936.....	7,777	2,004	9,781	1958.....	5,000	—	5,000
1937.....	2,850	—	2,850	1963.....	8,000	—	8,000

9. **Expenditure from Loans.**—In the subjoined table particulars are given for six years of the expenditure from loans under the main heads. The expenditure on Railways and Harbours, which amounted during the period of six years to £25,819,383, has absorbed almost half the total capital expenditure of the Union; excluding the capital expenditure of £6,315,961 on measures connected with the War.

Expenditure under the heads of Public Works and Buildings, Lands, and Local Works and School Loans, includes capital expenditure incurred by the Provincial Administrations.

EXPENDITURE FROM LOANS, 1918–19 TO 1923–24.

Loan Vote.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Railways and Harbours	2,088,803	3,186,644	5,972,229	5,993,810	3,283,881	5,294,016
Public Works and Buildings	229,108	263,235	867,760	640,312	472,374	420,412
Telegraph and Telephone Works	62,422	388,777	490,878	476,997	481,238	529,312
Agriculture	29,831	10,554	30,264	—	—	19,095
Lands	619,371	755,720	907,483	414,726	235,891	294,748
Irrigation	378,067	462,914	700,379	1,004,783	1,145,001	906,180
Local Works and School Loans	889,800	918,100	2,993,338	1,930,691	1,114,853	1,349,621
Land and Agricultural Bank	400,000	300,000	250,000	500,000	500,000	830,000
War Expenses and Defence	3,158,925	2,072,626	758,730	228,257	131,381	47,584
Capital for Advances	8,000	10,000	15,000	—	—	—
Native Affairs	204	552	1,215	1,475	1,977	1,707
Police Stores	30,000	50,000	60,000	—	—	—
Forestry	37,778	41,244	45,260	50,386	231,629	202,531
Provincial Administrations	—	—	—	—	200,000	722,000
GRAND TOTAL.....£	7,932,309	8,460,366	13,092,536	11,241,437	7,798,225	10,617,206

10. **Loan Expenditure and Recoveries.**—The following table shows, allocated to the various services, (*a*) the net expenditure from loan at 31st March, 1925, (*b*) the net expenditure from loan at Union, (*c*) the net expenditure from loan since Union, i.e. from 31st May, 1910, to 31st March, 1925, (*d*) recoveries on loan account since Union, and (*e*) the gross expenditure from loan account during the same period.

The net expenditure now shown as at the date of Union differs from the total net expenditure given in earlier issues of the *Year Book*, chiefly owing to the fact that the cost of the raising and conversion of loans is excluded.

The differences between the following figures of expenditure and recoveries since Union and those published by the Controller and Auditor General are due to the following adjustments, which increase both expenditure and recoveries:—

	£
(i) Recoveries by Land Bank retained and added to Land Bank capital	189,356
(ii) Added to Public Works expenditure and credited to recoveries Provincial Administrations in connexion with the taking over of technical colleges as places of higher education	95,000
(iii) Portion of special advance to Railways Administration added to Railways and Harbours capital and to recoveries	266,206
(iv) Sundry adjustments between expenditure and recoveries	21,988

These items do not figure as cash transactions in the Exchequer accounts.

A reconciliation statement as between the net expenditure from loan and the public debt is given at the foot of the table.

LOAN EXPENDITURE AND RECOVERIES.

Service.	Net Expenditure at 31st March, 1925.	Net Expenditure at 31st May, 1910.	Net Expenditure at 31st May, 1910, to 31st March, 1925.	Recoveries, 31st May, 1910, to 31st March, 1925.	Gross Expenditure, 31st May, 1910, to 31st March, 1925.
	£	£	£	£	£
Railways and Harbours	118,009,522	74,414,920	43,594,602	20,000	43,614,602
Railways and Harbours—Special Advance	—	—	—	1,500,000	1,500,000
Telegraphs and Telephones	6,035,338	1,245,566	4,789,772	61,278	4,851,050
Public Works and Buildings	10,197,914	4,267,469	5,930,445	295,936	6,226,381
Lands	12,456,666	4,225,396	1,586,028	3,277,220	4,863,248
Agriculture			*—231,649	552,000	320,351
Irrigation			6,876,891	417,105	7,293,996
Forestry	802,892	—	802,892	—	802,892
Loans to Provincial Administrations	9,104,485	—	9,104,485	933,934	10,038,419
Local Works Loans	390,630	456,915	* —66,285	295,635	229,350
School and College Loans	2,265,644	1,003,940	1,261,704	79,925	1,341,629
New Territory and Liability of Territory Annexed	3,466,171	3,466,071	100	—	100
Immigration	499,179	499,179	—	—	—
War and Defence	40,335,629	10,812,137	29,523,492	2,849,083	32,372,575
Repatriation	5,981,165	6,507,915	*—526,750	526,750	—
Land and Agricultural Bank	8,054,356	2,171,562	5,882,794	—	5,882,794
Deficiency in Revenue	6,952,184	4,939,719	2,012,465	—	2,012,465
Capital for Advances	50,000	—	50,000	—	50,000
Relief of Distress	375,776	—	375,776	60,770	436,546
Issue of Seed Wheat	22,070	—	22,070	67,224	89,294
Defence (Stores—Standard Stock)	260,000	—	260,000	—	260,000
Police (Stores—Standard Stock)	110,000	—	110,000	30,000	140,000
Advances for Establishing Housing Loans Fund	1,650,435	—	1,650,435	—	1,650,435
Public Health—Sanatoria, etc.	95,665	—	95,665	—	95,665
Purchase and Distribution of Flour	588,180	—	588,180	796,396	1,384,576
Purchase of Tobacco	16,110	—	16,110	50,496	66,606
Unemployment Expenditure	245,211	—	245,211	19,129	264,340
Electricity Supply Commission	70,592	—	70,592	—	70,592
	228,035,814	114,010,789	114,025,025	11,832,881	125,857,906
Cost of Raising and Conversion	7,596,077	4,710,604	2,885,473	—	2,885,473
TOTAL £	235,631,891	118,721,393	116,910,498	11,832,881	128,743,379

* Recoveries greater than Expenditure.

Net Expenditure to 31st March, 1925			£235,631,891
Add: Loan Recoveries in Transit at 31st March, 1925		£148	
Credit Balance, Loan Account, at 31st March, 1925		2,487,544	
Surrenders, Loan Votes, 1924–25, in Transit at 31st March, 1925		335,087	
			2,822,779
			£238,454,670
Deduct: Other Credits to Loan Account to 31st March, 1925—			
Gold Mining Leases	£3,375,946		
Bewaarplase Receipts	1,091,594		
Excess Profits Duty	1,218,241		
		£5,685,781	
Debt Paid Off		18,436,206	
			24,121,987
Debt Outstanding at 31st March, 1925			£214,332,683

11. **System of Capital Expenditure in Provinces.**—Prior to the passing of the *Financial Relations Act*, No. 10 of 1913 (as amended), capital expenditure in connexion with services controlled by the Provincial Administrations was covered by the general expenditure of the Union Government. In terms of section 6 (3) of the Act of 1913, however, specific issues from loans are provided for the Provinces in respect of capital or non-recurrent expenditure, defined as expenditure (whether directly or by loan to local bodies) upon the erection, construction, acquisition, extension, or improvement of any building, bridge, pont, or upon any work or undertaking of a permanent nature in relation to a matter entrusted to the Province, but not expenditure upon the construction of a road, unless authorized by the Treasury in special cases; provided that—

(*a*) if the expenditure upon any such building or extension thereof does not exceed £500, or

(*b*) if the expenditure upon any bridge, pont, or other such work or undertaking does not exceed £500, such expenditure is deemed to be normal or recurrent expenditure, except by provision of the Executive Committee of a Province on the annual estimates of expenditure, with the approval of the Treasury.

In 1925 the objects upon which loans could be made from capital expenditure were extended so as to include the purchase of provincial stores and requisites.

The amount which may from time to time be required by any Province for the purpose of meeting any capital or non-recurrent expenditure is advanced to that Province upon loan as required, in such amounts as Parliament authorizes by annual appropriation. Any such advance has to be repaid by the Province to the Treasury by equal half-yearly instalments so calculated that the whole advance and the interest thereon will be repaid within a period not less than fifteen years and not exceeding forty years, but the Treasury may prescribe a shorter period for the repayment of any such advance as is made for the construction of any road. Advances made prior to the 1st July, 1921, bear interest at the rate of 5 per cent. per annum, but under the provisions of section 1 (1) of Act No. 42 of 1917 the Treasury fixed the rate of interest on advances made on or after the 1st July, 1921, at 6 per cent. per annum. From the 1st January, 1923, the rate of interest has again been fixed at 5 per cent. per annum. The instalments and interest aforesaid are treated in the *Appropriation Ordinance* and in the accounts of the Province as part of its normal or recurrent expenditure.

The amounts received by a Province for capital expenditure are paid into the Provincial Revenue Fund.

12. **Details of Capital Expenditure in Provinces.**—Table (i) below gives the total capital expenditure in each Province for a period of years (1st April to 31st March), and the total capital expenditure for the whole of that period. Table (ii) gives in respect of each Province the capital expenditure for a number of years under the main heads of expenditure. The whole of this expenditure is covered in the table contained in paragraph 9 of this section.

(i) **CAPITAL EXPENDITURE OF PROVINCES, 1913–14 TO 1923–24.**

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1913–14	359,203	87,541	221,197	96,360	764,301
1914–15	338,205	86,472	212,497	101,000	738,174
1915–16	184,083	52,819	86,281	65,553	388,736
1916–17	229,375	54,103	125,393	65,222	474,093
1917–18	264,611	41,989	157,092	64,190	527,882
1918–19	247,766	130,991	220,480	80,168	679,405
1919–20	246,769	172,218	344,271	170,875	934,133
1920–21	349,039	216,147	513,116	317,832	1,396,134
1921–22	238,605	272,953	456,384	198,765	1,166,707
1922–23	160 222	91,608	224,592	168,968	645,390
1923–24	154,947	117,906	236,191	109,379	618,423
TOTAL.....£	2,772,825	1,324,747	2,797,494	1,438,312	8,333,378

(ii) **CAPITAL EXPENDITURE UNDER MAIN HEADS IN EACH PROVINCE, 1913–14 TO 1923–24.**

Year.	Cape of Good Hope.					Natal.		
	School Buildings.	Hospitals.	Bridges.	Other.	Total.	Buildings.	Roads and Bridges.	Total.
	£	£	£	£	£	£	£	£
1913–14	205,712	97,021	56,470	—	359,203	54,957	32,584	87,541
1914–15	189,273	102,275	46,657	—	338,205	57,845	28,627	86,472
1915–16	110,806	56,915	14,541	1,821	184,083	31,177	21,642	52,819
1916–17	205,095	9,782	9,012	5,486	229,375	40,310	13,793	54,103
1917–18	236,483	21,331	6,104	693	264,611	35,093	6,896	41,989
1918–19	213,810	26,877	7,079	—	247,766	108,875	22,116	130,991
1919–20	182,503	46,438	13,545	4,283	246,769	129,512	42,706	172,218
1920–21	236,053	57,700	19,153	36,133	349,039	135,339	80,808	216,147
1921–22	161,493	15,600	17,731	43,781	238,605	100,733	172,220	272,953
1922–23	104,993	6,990	8,142	40,097	160,222	28,162	63,446	91,608
1923–24	104,551	30,179	14,284	5,933	154,947	28,429	89,477	117,906
TOTAL £	1,950,772	471,108	212,718	138,227	2,772,825	750,432	574,315	1,324,747

(ii) CAPITAL EXPENDITURE UNDER MAIN HEADS IN EACH PROVINCE, 1913–14 TO 1923–24—*continued.*

Year.	Transvaal.					Orange Free State.			
	Buildings.	Roads and Bridges.	Acquisition of Land.	Grants.	Total.	Road Construction.	Buildings.	Bridges.	Total.
	£	£	£	£	£	£	£	£	£
1913–14	180,043	18,163	8,226	14,765	221,197	25,000	41,775	29,585	96,360
1914–15	198,873	11,104	2,520	—	212,497	15,329	83,247	2,424	101,000
1915–16	76,450	8,122	1,709	—	86,281	37,022	27,357	1,174	65,553
1916–17	120,177	1,841	3,375	—	125,393	41,790	23,314	118	65,222
1917–18	126,267	—	28,825	2,000	157,092	20,420	43,770	—	64,190
1918–19	179,928	24,823	14,509	1,220	220,480	20,467	59,701	—	80,168
1919–20	276,536	46,993	20,742	—	344,271	49,990	107,594	13,291	170,875
1920–21	376,758	112,582	23,776	—	513,116	59,475	225,304	33,053	317,832
1921–22	280,482	93,668	17,595	64,639*	456,384	38,460	123,960	36,345	198,765
1922–23	111,170	39,909	10,045	63,468*	224,592	75,478	58,425	35,065	168,968
1923–24	176,530	38,506	7,892	13,263*	236,191	49,629	50,364	9,386	109,379
TOTAL £	2,103,214	395,711	139,214	159,355	2,797,494	433,060	844,811	160,441	1,438,312

* Unemployed Expenditure.

13. **Trust Funds.**—Particulars are given below for a period of years of the amounts standing to the credit of various trust funds administered by the Public Debt Commissioners. The amount is stated as at the 31st March, the last day of each financial year :—

TRUST FUNDS, 1919 TO 1925.

Fund.	1919.	1920.	1921.	1922.	1923	1924.	1925.
	£	£	£	£	£	£	£
Guardians' Fund..	2,275,686	2,789,015	3,108,953	3,189,237	3,239,036	3,321,372	3,387,032
Pension Funds*...	3,457,152	4,008,887	4,372,198	4,846,018	5,283,191	5,804,769	7,542,041
Post Office Savings Bank.....	7,753,141	7,150,476	7,018,108	6,648,258	6,402,608	6,249,205	6,246,815
Sinking Funds....	9,144,035	9,856,196	11,284,200	11,713,918	12,644,549	11,523,967	12,448,076
Railway and Harbour Administration Funds.....	8,341,274	6,405,760	5,521,408	6,456,679	8,217,762	11,786,327	11,747,705
Other Funds.....	885,069	910,351	1,805,298	1,177,473	1,476,272	1,798,985	2,169,709
TOTAL.....£	31,856,357	31,120,685	33,110,165	34,031,583	37,263,418	40,484,625	43,541,378

* Exclusive of Pension Funds belonging to the Railway and Harbour Administration.

CHAPTER XXIII.

CURRENCY, BANKING AND GENERAL FINANCE.

§ 1. Coinage.

1. **The Transvaal Mint.**—On the 5th August, 1890, the Government of the South African Republic, in accordance with a resolution of the Executive Council, granted, subject to the approval of the Volksraad, a concession for the formation of a national bank to Messrs. Labouchere, Oyens and Company, of Amsterdam, and Dr. Wilhelm Knappe, of Berlin. The concession was to run for fifty years, subject to the right of the Government to revise it after twenty-five years, and it included provisions for the establishment of a State Mint which the bank was to lease and work on specified conditions.

Further particulars of the concession were given in the sixth issue of this *Year Book*. During its term of operation the State Mint of the South African Republic issued coins to the total value of £2,722,017. 8s. 4d., comprising gold coinage valued at £2,383,771. 10s., silver, £336,761. 11s. 6d. and bronze £1,484. 6s. 10d.

2. **The Pretoria Branch of the Royal Mint.**—(i) *General.*—The establishment of a branch of the Royal Mint at Pretoria was provided for by the Union Act No. 45 of 1919, which voted a sum of £40,000 annually out of the consolidated fund for the establishment and working expenses. A Royal Proclamation, dated the 14th December, 1922, determined the Pretoria Mint to be a branch of the Royal Mint, London, for the purpose of the manufacture of the British sovereign and half-sovereign. The Governor-General's Proclamation No. 37 of 1923 (the *Pretoria Mint Proclamation*, 1922), gave effect to the above Order in Council as from the 1st January, 1923.

The *Coinage Act*, No. 31 of 1922, determines the powers of the Minister of Finance in respect to the coinage of Union of South African silver and bronze coins and of the Governor-General in respect to dimensions and designs, etc. The denominations, weight, and fineness, and legal remedies for coins to be made at the Pretoria Mint are therein scheduled. Provision is also made for the purchase of metals for coinage.

From the 1st January, 1923, when the Governor-General's Proclamation became effective, the annuity provided by Act No. 45 of 1919 became payable, and the Pretoria Branch Mint began to function. Government Notice No. 742 of the 2nd May, 1923, contains the regulations issued by the Governor-General as to the deposit of gold bullion at the Pretoria Mint.

The Pretoria Mint is built on the site of the old gaol in Visagie Street, so intimately connected with the past history of the Transvaal. The design of the building is simple and allows for ample light and floorspace. No provision has been made for the refining of gold bullion, this process being undertaken at the Rand Refinery, Germiston.

The cost of erecting the mint up to the 31st March, 1925, was :—Buildings, £148,774 ; machinery and equipment, £73,357 ; land, £9,000 ; and miscellaneous expenses, £5,809. The net profit up to that date, after repayment of all capital expenditure and working costs, amounted to over £14,000.

All appointments to the Mint staff and the expenditure under the annuity are made and regulated by the Imperial Treasury and the accounts of its establishment are audited by the Imperial Comptroller and Auditor-General. The accounts relating to the manufacture of Union coins and all accounts other than those connected with the annuity are submitted to the examination and audit of the Union authorities.

The chief officer of each Branch is a Deputy of the Master of the Mint. The following are the names of the principal officers of the Pretoria Branch :—

Deputy Master	R. G. J. Pearson, M.Inst.M.M.
Superintendent	J. T. Becklake, A.M.I.E.E.
Assayer	C. R. Robson, B.Sc., A.I.C.
Chief Clerk and Accountant	R. E. Hill.

In addition to the British gold coin to be struck at the Mint under the conditions and at the charges given in the Government Notice No. 742, provision has also been made therein for assaying and marking with the Mint stamp bars of varying weights for the gold markets of the world. The sovereigns and half-sovereigns coined at the Mint will bear on the reverse the mint-mark "S.A." to distinguish them from those struck in London (no mint-mark) or at the other Branches in Sydney, Melbourne, Perth, Ottawa, and Bombay, which are marked "S," "M," "P," "C," and "I" respectively.

Union of South Africa silver and bronze coin are being coined at the Pretoria Mint. The designs for the shilling downwards, excepting the farthing, were the work of Mr. J. S. Cleland, the Architect, Public Works Department, and those for the two-and-a-half-shillings and florin of Mr. Kruger Gray, an artist in London. The denominations, with an indication of the designs of the reverses, are as follows (in all cases the obverses bearing the crowned effigy of His Majesty the King with the inscription GEORGIUS V. REX IMPERATOR, the inscription on the reverses being SOUTH AFRICA—ZUID AFRIKA and the date):—

Two-and-a-half-shillings..	A shield containing the Arms of the four Provinces of the Union, surmounted by a Crown, the denomination expressed as 2½ *Shillings*.
Florin.....	Shield as for above coin, no Crown. Denomination expressed as *Florin*.
Shilling.....	Figure of Hope with an Anchor. 1 *Shilling*.
*Sixpence.....	The figure "6" or "3" within a wreath of silver leaves.
*Threepence.....	
Penny.....	A Dutch East India merchantman in full sail. "1 Penny 1" or "½ Penny ½."
Halfpenny.....	
Farthing.....	Two heraldic sparrows. "¼ Penny ¼."

The silver coin is composed of 800 parts of pure silver to 200 parts of copper; whilst the bronze coin is made of a mixture of copper, tin, and zinc.

The profit or "seigniorage" derived from the issue of Union silver and bronze coin, as well as the revenue accruing from gold-coining charges, etc., is paid to the Union Government. The Mint is authorized to withdraw per annum £200,000 of British silver coin, ·925 standard, and the Imperial Government pays the Union Government the difference between the nominal and the bullion values thereof. The output of Union coinage is dependent upon demands made upon the Mint by the banks, and future expansion of the demand for this coinage would cause an increase in the seigniorage accruing to the Union Government. The demand for bronze coinage, though as yet not large, also yields a profit.

(ii) *Gold.*—In view of the Government's intention to return to the gold standard in July, 1925, the Pretoria Mint, acting on instructions from the Union Treasury, collected from the banks in Pretoria, Johannesburg, Capetown, Durban, and other centres, gold to the value of approximately £9,000,000. It was decided to go through this coin, separating the good-weight British coin from the light and setting aside the Transvaal Republican coin. The good-weight coin thus obtained was cleansed from dirt, so that it would reach the public in good condition, and was reissued to the banks. Up to the 30th June, 1925, the issues of this coin amounted to £4,015,309 in sovereigns and £86,036 in half-sovereigns. Light gold coin is to be melted down and recoined, the Imperial Government having undertaken to bear the cost of deficiency of gold; such recoinage being limited to an amount of £500,000 per annum.

The sudden decision in May, 1925, of the Government to return to the gold standard with the United Kingdom, caused a large demand for gold coin, and during the first half of 1925, the Mint was working at full pressure on the production of new sovereigns in addition to the sorting and cleaning of the above-mentioned Treasury coin. Approximately 1,000,000 oz. of fine gold from the Rand Refinery was coined up to the end of June, 1925.

(iii) *Silver.*—The total nominal value of silver coin received in the Mint for recoinage to the 30th June, 1925, was as follows: British coin (·925 standard), £620,583. 0s. 3d.; Transvaal Republican coin, £112,121. 7s. 6d.; German coin, £54,194. 15s. 9d.; total, £787,899. 3s. 6d. In addition, owing to the large demand for half-crowns, due to the withdrawal of the 10s. note, it was found necessary to purchase approximately 150,000 oz. of fine silver from the Rand Refinery; but though the silver currency has been thereby increased by £80,381, the S.A. Reserve Bank has withdrawn from circulation many times that amount in 10s. notes.

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* A new design, more in keeping with the designs on the other denominations of Union coinage has been approved and executed for the reverse of the 3d. and 6d. coins. This consists of a representation of the Protea, the typical botanical emblem of the Union, enclosed in a figure of which the sides are formed by bundles of four rods bound together, symbolical of the four united Provinces; on the 3d., three bundles; on the 6d., six bundles. Coins of these new designs were first struck and issued in 1925, and slight alterations in the value designations on the 2s. 6d., 1s., and the bronze coins were also made.

THE TOTAL ISSUES OF NEW GOLD, SILVER, AND BRONZE COIN FROM THE PRETORIA MINT, UP TO 30TH JUNE, 1925, WERE AS FOLLOWS* :—

Denomination.	Number of Pieces.	Value.
£	1,456,054	£1,456,054 0 0
10s.	—	—
Total Gold	1,456,054	£1,456,054 0 0
2s 6d	4,217,396	£527,174 10 0
2s	2,207,152	220,715 4 0
1s	1,918,895	95,944 15 0
6d	522,990	13,074 15 0
3d	909,646	11,370 11 6
Total Silver	9,776,079	£868,279 15 6
1d	135,850	£566 0 10
½d	69,753	145 6 4½
¼d	77,954	81 4 0½
Total Bronze	283,557	£792 11 3
Total All Coins	11,515,690	£2,325,126 6 9

In addition to the above, 647 sets "A" and 470 sets "B" of specimen coins were issued. Sets "B" comprise a collection of the silver and bronze coinage, and sets "A" include also specimen gold coins of the £1 and 10s. denominations.

§ 2. Currency and Banking.

1. **Currency and Banking Act, 1920.**—In terms of the *Public Welfare and Moratorium Act*, 1914, and its amendments, an embargo was imposed on the export of specie from the Union, and in 1920 a Select Committee of the House of Assembly, under the Chairmanship of the Minister of Finance, was appointed to investigate the effects of this measure and also to inquire into the question of modifying the existing statutory provisions in regard to currency and banking. Following on the report of the Committee, the *Currency and Banking Act*, No. 31 of 1920, was passed. In this Act provision was made for the issue of temporarily inconvertible gold certificates and the establishment of a Reserve Bank (see below).

A Currency Conference which was held in October, 1921, in Pretoria, with Mr. W. H. Clegg, the Governor of the South African Reserve Bank, as Chairman, reported in favour of an ultimate return to the gold standard of the same weight and fineness as before the war and against any inflation of the currency. With these objects in view the Conference made the following recommendations in a majority report :—

(*a*) That the inconvertibility of the gold certificate be extended to 30th June, 1925.

(*b*) That the embargo imposed on the export of gold bullion under the *Public Welfare and Moratorium Act*, 1914, and later amendments, be removed as soon as possible, and that the export and import of the precious metals in the form of bullion be freed from all restrictions.

* In November, 1924, the Transvaal Chamber of Mines sent to the Mint 606 fine ozs. of gold for experimental conversion into sovereigns.

(*c*) That it be open to the public to make contracts with an express provision for payment in gold, and that, if necessary, the law be altered so as to prevent a debtor discharging his obligations (unless with the consent of the creditor) in any form of money other than that specified in the contract.

(*d*) That the provisions of the *Public Welfare and Moratorium Act*, and amendments thereto, empowering the imposition of an embargo on the export of coin be not continued after 30th June, 1922.

The *Public Welfare and Moratorium Act* was allowed to lapse on 30th June, 1922, and thereafter the movement of gold to and from the Union was freed from all restrictions.

2. **Gold Certificates.**—The *Currency and Banking Act*, 1920, gave authority for the Treasury to receive deposits of gold coin and bullion to the value of not less than ten shillings, and to issue therefor certificates known as *gold certificates*. Such certificates may not be issued for a sum in excess of—

(*a*) The face value of the gold coin presented, provided such coin is not less than the least current weight prescribed by law for such coin; and

(*b*) £3. 17s. 10½d. per ounce standard for the gold bullion or light coin presented, subject to such charges as may from time to time be prescribed by regulation to cover the cost of refining and minting.

Whenever the market price of gold in the Union exceeds £3. 17s. 10½d. per standard ounce, a proclamation may be issued declaring the suspension of the redemption of gold certificates: Proclamation No. 220, 1920, 15th December, 1920. Otherwise, gold certificates are redeemable at the Treasury in gold specie on demand. Gold certificates are legal tender for the payment of any sum up to their face value. The Treasury is required to publish weekly a statement of the gold certificates issued, redeemed, and outstanding on the Saturday preceding the publication.

The Treasury may require each bank transacting business in the Union to deposit at the Treasury the whole or any portion of the gold coin held by or on behalf of such bank and receive in exchange gold certificates.

It was provided that gold certificates should be convertible into gold after 30th June, 1923, unless otherwise determined by Act of Parliament. On the recommendation of the Currency Conference of 1921, the period of inconvertibility of gold certificates was extended by the *Currency and Banking Act Amendment Act* No. 22 of 1923, to the 30th June, 1925.

PARTICULARS OF THE ISSUE OF GOLD CERTIFICATES, 1920 TO 1925.

Date.	Total Value of Certificates Issued.	Value of Certificates Redeemed.	Value of Certificates Outstanding.	Gold held for Redemption of Certificates.
	£	£	£	£
18th December, 1920....	7,200,000	—	7,200,000	7,200,000
26th March, 1921.....	8,459,000	91,933	8,367,067	8,651,117
25th June, 1921.....	8,979,550	91,933	8,887,617	8,887,617
24th September, 1921.....	9,563,565	91,933	9,471,632	9,471,632
31st December, 1921.....	10,205,006	91,933	10,113,073	10,113,073
29th March, 1924.....	10,331,006	91,933	10,239,073	10,239,073
28th June, 1924.....	10,445,901	91,933	10,353,968	10,353,968
27th September, 1924.....	10,450,501	91,933	10,358,568	10,358,568
27th December, 1924.....	10,450,501	91,933	10,358,568	10,358,568
28th March, 1925.....	10,450,501	91,933	10,358,568	10,358,568
27th June, 1925.....	10,450,501	1,380,183	9,070,318	9,070,318
26th September, 1925.....	10,450,501	5,948,418	4,502,083	4,502,083
26th December, 1925.....	10,450,501	8,815,017	1,635,484	1,635,484

3. **Gold Standard Inquiry Commission.**—In view of the fact that, under existing legislation, gold certificates would cease to be inconvertible on the 1st July, 1925, and South Africa would automatically return to the gold standard on that date, the Government obtained the services of Dr. E. W. Kemmerer, Professor of Economics and Finance at Princeton University, United States of America, and Dr. G. Vissering, President Bank of the Nederlands, "to visit the Union and investigate the question of the restoration of the gold standard by the Union independent of the United Kingdom." The two Commissioners met in London in the middle of November, and before preceeding to South Africa interviewed or obtained informal evidence from a number of persons. They arrived in Pretoria on 10th December, and, after an exhaustive inquiry, submitted their report to the Government on 8th January, 1925. They recommended that South Africa should return to the gold standard on the 1st July, 1925, and that a public announcement to that effect be made

as soon as possible. A few days later the Government announced that it did not intend to introduce amending legislation during the session, so that South Africa would have returned to the gold standard on 1st July, 1925. Owing, however, to the return of the United Kingdom to the gold standard at the end of April, gold certificates were proclaimed convertible into gold on the 11th May (Proclamation No, 110, 1925). They are now being withdrawn and cancelled.

In the report the advantages of adopting the gold standard were stated to be (1) Greater stability in purchasing power, both internal and external; (2) greater stability in interest rates and a lower level of real interest rates; (3) stability of exchange with gold standard countries, which were continually increasing in number and which in many cases determined the ulimate price of South African exports; (4) greater confidence in South Africa abroad, which would encourage investment of foreign capital; (5) greater confidence of labour; (6) more convenient and more sanitary currency; (7) benefit to the gold industry by encouraging other countries to return to the gold standard.

The chief disadvantage was stated by the Commissioners to be the instability of exchange with England, but as offsetting factors to that were (1) the fact that neither high nor low rates of exchange were of permanent advantage or disadvantage to either importers or exporters, and (2) the risks incident to a fluctuating exchange can be avoided by making forward exchange contracts.

The Commissioners further stated that, although South African credit abroad would be improved, it was a risky policy to borrow heavily in a country with a managed paper currency. South Africa should therefore reduce her public borrowing, and as far as possible borrow on a gold basis whether at home or abroad.

The chief reasons why South Africa should have no difficulty in maintaining a gold standard were thus enumerated in the report: (1) There was a mint in operation and gold specie need not be imported; (2) a Reserve Bank had been constituted, which could assist in maintaining the monetary standard; and (3) there were enormous gold supplies continuously being produced in the country.

The Commissioners recommended that, with the object of maintaining the gold standard, the Reserve Bank should become more active in the open market. The Act gave the Bank almost sufficient power to do so, but the following suggestions requiring minor changes in the existing law were offered:—

(1) The Bank to have power to make—
  (*a*) loans not exceeding 120 days on bills or one-name paper secured by warehouse receipts for staple commodities not exceeding 75 per cent. of value;
  (*b*) direct loans not exceeding fifteen days up to amount of the Bank's paid-up capital to banks collateralled by bills which the Bank might rediscount, and of short-time Government and municipal securities;
  (*c*) investments in Union Government or municipal notes or bills with maturities not exceeding six months to amount to Bank's paid-up capital.
(2) Extension of usance for discounts from 90 to 120 days.
(3) Modification of requirements as to gold balance abroad.

The following administrative changes were suggested with a view to the Bank functioning more effectively:—

(1) Issue of 90-day Treasury bills.
(2) Preferential rates for trade acceptances.
(3) Use of Bank as chief depository for Government funds.
(4) Bank should open branches in principal towns in Union and in London.

Besides this, the Commissioners recommended the withdrawal of gold certificates, the repeal of section 32 of the Bank Law, and the withdrawal or restrictions on the melting of gold coin and bullion.

4. **South African Reserve Bank.**—Chapters II and III of the *Currency and Banking Act*, as amended by Act No. 22 of 1923, provide for the establishment at Pretoria of "The South African Reserve Bank." The bank management consists of a board of eleven directors, of whom six are elected by stockholders, three must be or have been actively engaged in commerce or finance, one in agriculture, and two in other industrial pursuits, three are Government representatives, while the Government also appoints the Governor and the Deputy-Governor of the bank. No person can be nominated as a director, if he is a director, officer, or employee of another bank or a member of Parliament or of a Provincial Council. All the directors must be British subjects and must reside in the Union.

The capital of the Bank is £1,000,000. No stockholder other than a subscribing bank or the Treasury may hold more than £10,000 of the capital stock. If any bank parts with its stock in excess of £10,000 it may not re-acquire it.

The capital of the Bank may be increased with Treasury approval, and the price of stock for that purpose may be fixed by the board with the approval of the Treasury.

Provision is made for the creation of a reserve fund which will ultimately be equal to the paid-up capital. No dividend exceeding 6 per cent. is to be paid as long as restrictions on the export of gold or on the convertibility of gold certificates are in force. Later, profits in excess of 10 per cent. dividend will be paid to the Government.

The Bank may engage in the following business :—

i. May make and issue bank notes.
ii. May accept money on deposit and collect money for customers.
iii. May buy and sell or rediscount bills of exchange, promissory notes, or other commercial paper having a maturity not exceeding ninety days. A fifth of this business may be six months' bills for agricultural purposes or based on live stock.
iv. May make loans and advances on specified securities.
v. May deal with 90 days Bills of Exchange and Promissory Notes, endorsed by a bank for the purpose of carrying or trading in Union Government Securities.
vi. May deal in six months bills of the Union Government or of a local authority.
vii. May effect transfers by telegram or letter, etc., to places abroad.
viii. May buy and sell stock, etc., having not more than six months to run of the Union Government and of local authorities in the Union, may invest a sum not exceeding the paid-up capital and reserve in securities not having more than two years to run of the Union or other governments, may invest its staff and superannuation funds in Union Government securities of any currency.
ix. May buy and sell securities for customers.
x. May buy, sell, and deal in precious metals.
xi. May accept the custody and management of moneys, securities, and other articles of value.
xii. May open accounts in foreign countries and act as agent for any bank.

The Bank may not, however :—

Engage in trade or have a direct interest in any commercial or industrial undertaking except as specially provided above ; purchase its own stock, or the stock or shares of any other bank or grant security upon them ; advance money on mortgage or on notarial bond or cession thereof or become the owner of fixed property except for its own business premises ; make unsecured loans or advances ; draw or accept bills payable otherwise than on demand ; accept money on deposit for a fixed term or allow interest on credit balances on current account.

The Bank has the sole right to issue bank notes in the Union for a period of twenty-five years. These notes are legal tender except when tendered by the Bank itself. The denominations of notes are to be prescribed by the Treasury, and the notes are to be redeemable in gold specie or gold certificates. The note issue is to be secured to an amount of not less than 40 per cent. in gold, and the remainder in commercial paper or trade bills, or until 30th June, 1928, in British or Union Government Treasury Bills, which must not exceed 35 per cent. of the total note issue, nor 140 per cent. of the commercial paper or trade bills held by the Bank. It is also secured by a first charge on all the assets of the Bank. Further provision is made for the suspension of reserve requirements for certain limited periods subject to a graduated tax on the excess issue of notes. The Bank must increase its rates of interest and discount by at least the same percentage.

The Bank must hold in gold or specie a reserve of at least 40 per cent. of its deposits and bills payable in addition to the gold reserve required for bank notes (not more than one fifth of this reserve may be silver specie).

Every bank transacting business in the Union is required to hold reserve balances in the Reserve Bank equal to at least 10 per cent. of its demand liabilities in the Union other than notes, and 3 per cent. of its time liabilities to the public in the Union.

The Act came into operation on 17th December, 1920, and the Bank opened on 30th June, 1921. In December of the same year it notified the Treasury that it was in a position to issue notes. A proclamation (No. 14 of 1922) was issued declaring that on 30th June, 1922, all other banks should cease to issue or reissue bank notes. The Treasury subsequently prescribed the following denominations of notes to be issued : 10s.,* £1, £5, £20, and £100. As, however, there was found to be a shortage of £1 notes the Reserve Bank at the request of the other banks actually began issuing notes in April. By the end of July the change over was practically accomplished. Under the Act the commercial banks transferred the liability for their outstanding notes, amounting to £443,084 to the Reserve Bank on the 30th June, 1924.

Until the issue of its notes the business of the Reserve Bank was chiefly confined to granting advances to the Government and acting as a clearing-house for other banks. Since then it has been engaged in building up a rediscount business.

The Bank has opened branches in Johannesburg, Capetown, Durban, Port Elizabeth, and East London. It has been actively engaged in marketing the gold production, which has enabled it to control the South Africa-London exchange.

* By Government Notice No. 2138 dated 24th December, 1923, the Treasury prescribed that 10s. notes should no longer be issued.

SOUTH AFRICAN RESERVE BANK—LIABILITIES AND ASSETS, 1921 TO 1925.

(SUBSCRIBED CAPITAL, £1,000,000.)

LIABILITIES.

Date.	Capital and Reserve.	Notes.	Deposits, Bankers.	Other Liabilities.	Total Liabilities.	Ratio of Cash Reserves to Liabilities to the Public.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	%
2nd July, 1921.....	233	—	5,699	6	5,938	91·0
31st December, 1921.....	1,000	—	6,520	60	7,580	72·7
24th June, 1922.....	1,002	2,937	6,659	47	10,645	76·4
30th December, 1922.....	1,002	10,014	5,157	139	16,312	70·4
30th June, 1923.....	1,040	13,088	5,029	122	19,279	59·3
29th December, 1923.....	1,040	11,334	4,811	239	17,424	66·5
28th June, 1924.....	1,153	10,789	5,576	140	17,658	65·7
27th September, 1924.....	1,153	10,418	4,565	562	16,698	70·4
27th December, 1924.....	1,153	11,456	4,492	572	17,673	66·4
28th March, 1925.....	1,153	11,097	4,811	675	17,736	76·9
27th June, 1925.....	1,258	10,284	5,025	568	17,135	77·3
26th September, 1925.....	1,258	9,158	4,815	1,797	17,028	66·6
26th December, 1925.....	1,258	8,756	6,365	1,035	17,414	56·9

ASSETS.

Date.	Gold Coin, Bullion, and Gold Certificates.	Subsidiary Coin.	Bills Discounted.	Union Government Treasury Bills.	British Government Treasury Bills.	Loans and Advances to Government.	Other Loans and Advances.	Other Assets.	Total Assets.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
2nd July, 1921	5,187	—	250	—	—	—	500	1	5,938
31st December, 1921.....	4,746	—	—	—	—	2,200	—	634	7,580
24th June, 1922	7,332	—	—	—	—	2,200	81	1,032	10,645
30th December, 1922.....	10,436	250	3,144	—	—	1,300	1,063	119	16,312
30th June, 1923	10,625	125	4,045	225	1,700	2,500	—	59	19,279
29th December, 1923.....	10,652	100	4,081	35	1,870	500	12	174	17,424
28th June, 1924	10,723	50	3,125	15	935	2,700	—	110	17,658
27th September, 1924.....	10,775	50	2,847	—	1,380	1,100	19	527	16,698
27th December, 1924.....	10,776	50	3,028	1,000	1,220	1,000	37	562	17,673
28th March, 1925.....	12,440	50	4,026	200	590	—	—	430	17,736
27th June, 1925	12,066	50	3,065	1,250	100	—	17	587	17,135
26th September, 1925.....	9,601	50	3,621	2,000	885	—	130	741	17,028
26th December, 1925.....	8,958	50	5,450	1,270	885	—	—	801	17,414

5. **Banking in South Africa.**—A brief account of the history of banking in the Union will be found in the sixth and previous issues of this *Year Book*.

In the following tables are shown the liabilities and assets of all banks operating in South Africa since 1891, with the exception of the Banque Française de l'Afrique du Sud, which operated in the Transvaal for a few years, but the returns of which have not been fully traced. The statements contain returns of the following banks:—Standard Bank of South Africa, Limited, 1891–1925; Bank of Africa, Limited, 1891–1911 (amalgamated with the National Bank, 1912); African Banking Corporation, Limited, 1891–1919 (amalgamated with the Standard Bank, 1920); National Bank of South Africa, Limited, 1911–1925; Netherlands Bank of South Africa, Limited, 1891–1925; Natal Bank, Limited, 1891–1913 (amalgamated with the National Bank, 1914); National Bank of the Orange

Free State, Limited, 1891–1913 (amalgamated with the National Bank, 1910); Worcester Commercial Bank, Limited, 1891 (amalgamated with the African Banking Corporation, 1892); Robinson South African Banking Company, Limited, 1900–1904 (liquidated, 1905); National City Bank of New York (South African Branch), Limited, 1920 (liquidated, 1921); Colonial Banking and Trust Company, Limited, 1921–25: and Stellenbosch District Bank, 1891–1925; and Transvaal Commercial Bank, 1923–24 (amalgamated with Netherlands Bank of South Africa, 1925).

Acceptances have been omitted in accordance with returns published since 1917. It has been found impossible to disentangle the item "Money at Call or Short Notice" before the year 1917. Part of it appears to have been included as cash and part of it with "Other Assets." In the tables below it has been included since 1917 in "Other Assets." The amounts were:—

	£1,000
1917	4,574
1918	3,596
1919	5,339
1920	2,707
1921	7,051
1922	3,004
1923	4,262
1924	5,808
1925	4,539

In any case the transactions were chiefly outside the Union.

STATEMENT OF LIABILITIES AND ASSETS OF SOUTH AFRICAN BANKS DURING PERIOD 1891 TO 1925 (31st DECEMBER EACH YEAR).

LIABILITIES.

Year.	Capital and Reserve.	Notes.	Deposits.		Balances Due to Head Office and Branches and other Banks.	Other Liabilities.	Total.
			Time.	Demand.			
	£1000.	£1000.	£1000.	£1000.	£1000.	£1000.	£1000.
1891	3,360	939	5,680	6,415	3,253	1,899	21,546
1892	3,393	1,057	6,666	7,577	6,409	1,450	26,552
1893	3,454	1,073	6,499	7,314	5,548	1,579	25,467
1894	3,515	1,118	7,363	8,830	4,853	1,145	26,824
1895	4,042	1,640	8,701	20,068	9,405	1,436	45,292
1896	4,435	2,047	6,813	20,183	7,066	1,907	42,451
1897	4,964	1,831	6,922	15,451	9,372	1,964	40,504
1898	5,071	1,764	7,726	13,685	9,630	2,223	40,099
1899	6,162	2,076	8,619	16,534	7,490	2,214	43,095
1900	9,253	2,335	8,898	19,582	8,055	2,412	50,535
1901	9,343	2,251	10,172	22,607	7,224	2,647	54,244
1902	9,739	2,658	15,419	31,803	10,036	4,192	73,847
1903	9,710	2,450	15,976	25,657	12,703	3,824	70,320
1904	9,969	2,128	17,791	25,304	9,991	3,356	68,539
1905	8,439	2,172	20,896	23,143	10,667	4,156	69,473
1906	8,455	2,075	20,977	20,076	9,701	4,033	65,317
1907	8,217	1,750	19,550	18,241	7,587	3,662	59,007
1908	8,222	1,807	18,412	19,132	8,282	5,096	60,951
1909	8,144	2,024	19,901	21,352	8,752	3,798	63,971
1910	7,724	2,394	19,216	23,258	10,355	4,263	67,210
1911	7,822	2,379	21,070	23,322	12,651	5,040	72,284
1912	7,932	2,401	20,726	24,725	7,575	4,850	68,209
1913	8,111	2,394	22,089	22,785	8,902	5,702	69,893
1914	8,106	2,404	21,855	23,542	7,191	5,200	68,298
1915	7,964	2,732	24,027	27,061	12,742	5,894	80,420
1916	7,990	3,432	24,379	30,907	13,646	6,876	87,230
1917	8,221	4,658	28,168	36,604	5,947	7,860	91,458
1918	8,421	6,451	32,411	45,182	5,075	8,654	106,194
1919	9,419	8,220	41,765	65,311	22,727	11,855	159,297
1920	9,756	9,469	43,615	58,717	4,997	10,741	137,295
1921	9,766	9,183	41,595	49,403	7,924	9,855	127,726
1922	9,469	1,607	36,886	46,912	8,915	7,471	111,260
1923	7,887	1,043	29,961	47,805	7,205	6,731	100,632
1924	8,055	714	28,824	48,040	6,179	8,250	100,062
1925	8,212	791	27,790	50,853	6,738	8,681	103,065

STATEMENT OF LIABILITIES AND ASSETS OF SOUTH AFRICAN BANKS DURING PERIOD 1891 TO 1925 (31ST DECEMBER EACH YEAR)—*continued.*

ASSETS.

Year.	Coin and Bullion.	Notes of other Banks.	Securities.	Bills Discounted.	Advances.	Balances Due by Head Office and Branches, and other Banks.	Other Assets.	Total.
	£1000.	£1000.	£1000.	£1000.	£1000.	£1000.	£1000	£1000.
1891...	4,473	41	2,095	5,611	4,209	3,852	1,265	21,546
1892...	4,482	105	2,094	6,179	4,990	7,229	1,473	26,552
1893...	3,946	93	2,001	6,282	5,572	6,414	1,158	25,467
1894...	4,413	110	2,455	6,440	5,192	6,661	1,553	26,824
1895...	9,208	187	3,064	6,163	12,864	12,124	1,682	45,292
1896...	9,280	238	3,495	7,926	10,693	8,847	1,972	42,451
1897...	5,947	289	3,006	7,772	11,325	10,292	1,873	40,504
1898...	4,894	201	2,918	7,675	11,264	11,346	1,801	40,099
1899...	8,077	244	3,531	7,342	12,342	9,254	2,305	43,095
1900...	8,174	301	4,486	8,027	14,579	10,680	4,288	50,535
1901...	8,809	219	6,365	8,362	15,511	10,583	4,395	54,244
1902...	11,472	303	7,983	12,445	22,540	14,948	4,156	73,847
1903...	10,015	251	6,190	11,648	23,350	14,623	4,243	70,320
1904...	9,348	277	5,826	11,516	24,185	12,998	4,389	68,539
1905...	8,907	277	5,597	12,671	24,349	12,918	4,754	69,473
1906...	8,110	255	5,684	11,417	23,765	11,144	4,942	65,317
1907...	7,968	133	5,473	9,518	21,283	9,474	5,158	59,007
1908...	8,168	248	5,929	9,784	20,039	10,231	6,552	60,951
1909...	7,884	267	4,733	11,436	23,479	11,632	4,540	63,971
1910...	7,766	306	4,905	11,581	25,552	12,221	4,879	67,210
1911...	7,851	280	4,557	14,477	26,669	13,608	4,842	72,284
1912...	8,066	328	3,782	15,440	26,704	9,779	4,110	68,209
1913...	8,150	290	3,673	15,029	26,939	11,324	4,488	69,893
1914...	8,372	487	4,629	11,986	29,317	9,198	4,309	68,298
1915...	9,151	523	9,379	12,853	28,470	15,908	4,136	80,420
1916...	6,961	532	7,740	14,398	33,878	18,445	5,276	87,230
1917...	8,939	613	9,934	17,919	30,202	13,188	10,663	91,458
1918...	9,337	1,028	10,773	22,059	40,449	13,770	8,778	106,194
1919...	8,658	3,747	17,333	30,409	51,246	35,368	12,536	159,297
1920...	12,153	1,880	8,707	30,488	60,651	13,900	9,516	137,295
1921...	*15,528	1,510	10,140	24,346	50,568	14,704	10,930	127,726
1922...	*8,320	†4,282	12,070	21,677	43,610	13,888	7,413	111,260
1923...	*7,593	†3,945	11,620	17,442	36,934	13,865	9,233	100,632
1924...	*7,169	†3,983	12,245	17,891	34,839	12,563	11,372	100,062
1925...	*8,639	†3,167	10,761	22,106	33,939	14,464	9,989	103,065

* Includes balances in South African Reserve Bank, 1921—£6,519,000, 1922—£5,156,000, 1923—£4,872,000, 1924—£4,624,000, and 1925—£5,608,000.

† Includes notes of South African Reserve Bank, 1922—£2,980,000, 1923—£3,128,000, 1924—£2,991,000, and 1925—£2,234,000.

6. **Joint-Stock Banks.**—There are five banks trading in the Union. Of these, the Standard Bank of South Africa, Limited, has its Head Office in London, the *National Bank of South Africa, Limited, in Pretoria, the Netherlands Bank of South Africa, Limited, in Amsterdam, Holland, and the Stellenbosch District Bank, Limited, in Stellenbosch, in the Cape Province, and the Colonial Banking and Trust Company, Limited, in Johannesburg.

Subject to the amending clauses of the *Currency and Banking Act*, 1920, and the Amending Act, No. 22 of 1922, the following laws exist to control banking :—

Transvaal Law No. 2 of 1893.
Orange Free State Ordinance No. 20 of 1902.
Cape Colony Act No. 6 of 1891.
Union Act No. 7 of 1917.

Under the *Banks Act* of 1917 all banks are required to render to the Union Treasury detailed returns of their assets and liabilities within and without the Union as at the 31st March, 30th June, 30th September, and 31st December in each year.

In terms of section 31 of the *Currency and Banking Act*, 1920, as amended by Act No. 22 of 1923, all banks are required to make a monthly return showing, for the Union, their liabilities to the public, their cash reserves, the total amount of their advances and discounts, and the value of South African Reserve Bank notes held by them.

* Now operating under the title of Barclays Bank (Dominion, Colonial, and Overseas)—see para. 13 following.

7. **Branch Banking.**—The following table gives the numbers of branches, sub-branches, and agencies of the various banks in the Union in the years 1914 and 1925 :—

BRANCH BANKS, SUB-BRANCHES, AND AGENCIES, 1914 AND 1925.

Bank.	1914.				1925.			
	Branches.	Sub-Branches.	Agencies.	Total.	Branches.	Sub-Branches.	Agencies.	Total.
Standard Bank.	171	—	26	197	221	25	34	280
National Bank.	175	—	27	202	238	14	65	317
Netherlands Bank.....	7	—	—	7	17	—	—	17
Stellenbosch Bank.....	1	—	—	1	1	—	—	1
African Banking Corporation..	37	2	—	39	—	—	—	—
Natal Bank....	32	1	8	41	—	—	—	—
Colonial Banking and Trust Company.. .	—	—	—	—	8	—	—	8
TOTAL. ..	423	3	61	487	485	39	99	623

In 1914 there was one bank or agency per 2,782 European persons, while in 1925 there was one bank or agency per 2,628 European persons, banking facilities having increased at an even greater rate than the population, despite amalgamations, which closed competing branches in many towns and villages.

The extent to which the country is served by banks may be gathered from the fact that there are only two urban areas—Albertinia and Keimoes—other than suburbs, with a European population at the 1921 census of over 600, which have not got banking facilities. There are no less than fifty centres with a population under 1,000 Europeans that are served by two banks.

8. **Banking Statistics.**—The subjoined statements give particulars for a number of years as to the liabilities and assets of all joint-stock banks in the Union, and for the year 1925 as to the liabilities and assets of each bank. The form of presentation is based upon that prescribed by the Union *Banks Act* of 1917, which differs in certain respects from the form adopted for previous years.

(i) **JOINT-STOCK BANKS—TOTAL LIABILITIES (31st DECEMBER), 1914, AND 1922 TO 1925.**

Heading.	1914.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Subscribed Capital.....	10,407,860	12,158,460	11,468,960	11,468,960	11,497,502
Paid-up Capital.....	5,153,885	5,462,565	4,773,065	4,773,065	4,801,607
Reserve Fund.....	2,951,900	4,006,745	3,114,026	3,282,078	3,410,555
Legal Tender Notes in Circulation	1,172,141	288,790	128,264	—	—
Other Notes in Circulation.....	1,231,824	1,317,967	915,534	713,866	790,967
Government Deposits*	—	4,249,686	3,215,659	3,733,539	3,722,740
Savings Bank Deposits*.....	—	3,062,775	2,946,578	3,169,187	3,392,085
Deposits payable after notice or on a fixed date.....	21,854,539	36,885,618	29,960,395	28,824,067	27,789,768
Deposits on Current Account...	23,542,435	39,599,496	41,642,083	41,136,671	43,737,732
Balances due to other Banks...	198,448	1,558,968	698,075	1,121,836	1,063,208
Balances due to Head Office and Branches.....	6,992,935	7,356,061	6,506,999	5,057,170	5,674,705
Bills payable.....	1,258,401	1,558,509	1,794,865	2,096,554	2,202,417
Bills received for Collection....	6,402,592	†	†	†	†
Other Liabilities.....	3,942,325	5,912,896	4,936,435	6,153,616	6,479,299
TOTAL.....£	74,701,425	111,260,076	100,631,978	100,061,649	103,065,083

* In 1917, owing to the operation of the *Banks Act*, No. 7 of that year, statistics as to Government and Savings Bank Deposits became available.

† Figures not published under *Banks Act* of 1917.

(ii) JOINT-STOCK BANKS—LIABILITIES OF EACH BANK, 31st DECEMBER, 1925.

Heading.	Standard Bank of South Africa, Ltd.	National Bank of South Africa, Ltd.	Netherlands Bank of South Africa, Ltd.	Stellenbosch District Bank, Ltd.	Colonial Banking and Trust Company, Ltd.	Total.
	£	£	£	£	£	£
Subscribed Capital.....	8,916,660	2,075,500	468,542	16,800	20,000	11,497,502
Paid-up Capital.....	2,229,165	2,075,500	468,542	8,400	20,000	4,801,607
Reserve Fund.....	2,893,335	300,000	146,833	33,000	37,387	3,410,555
Legal Tender Notes in Circulation.....	—	—	—	—	—	—
Other Notes in Circulation	490,929	300,038	—	—	—	790,967
Government Deposits.....	1,821,029	1,901,180	531	—	—	3,722,740
Savings Bank Deposits....	1,128,128	2,046,201	40,173	15,232	162,351	3,392,085
Deposits payable after notice or on a fixed date	18,906,272	7,906,878	520,599	160,537	295,482	27,789,768
Deposits on Current Account.....	25,234,550	17,323,995	1,030,956	92,954	55,277	43,737,732
Balances due to other Banks	238,117	825,091	—	—	—	1,063,208
Balances due to Head Office and Branches.....	1,392,646	3,730,360	528,617	—	23,082	5,674,705
Bills payable.....	1,593,007	471,437	127,632	—	10,341	2,202,417
Bills received for Collection*	*	*	*	*	*	*
Other Liabilities.....	4,065,161	1,847,962	529,445	17,677	19,054	6,479,299
TOTAL.....£	59,992,339	38,728,642	3,393,328	327,800	622,974	103,065,083

* Figures not published under *Banks Act* of 1917.

(iii) JOINT-STOCK BANKS—TOTAL ASSETS (31st DECEMBER), 1914, AND 1922 TO 1925.

Heading.	1914.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Coin and Gold Certificates in hand and in transit.....	7,823,806	2,955,349	2,505,771	2,313,387	2,925,632
Bullion in hand and in Transit	548,218	209,262	215,220	232,352	105,115
Balances held in S.A. Reserve Bank.....	—	5,155,757	4,871,787	4,624,157	5,607,714
Money at Call or Short Notice.	*	3,003,703	4,262,149	5,807,517	4,538,728
Notes of other Banks.....	487,307	1,302,460	816,913	992,423	932,695
Notes of S.A. Reserve Bank...	—	2,979,694	3,128,319	2,991,333	2,234,698
Balances due by other Banks..	661,739	1,258,211	1,002,630	1,113,172	2,040,825
Securities—					
(*a*) Union Government.....	4,629,632	3,266,131	2,724,954	3,488,499	3,558,692
(*b*) British and Colonial Government.....		7,344,806	7,514,371	7,659,981	5,945,825
(*c*) Other Securities..... ..		1,459,089	1,380,848	1,096,428	1,255,939
Bills under Discount—					
(*a*) Current.....	10,792,264	19,533,273	16,094,079	17,089,214	21,519,976
(*b*) Overdue and Unpaid.....	1,194,466	2,143,608	1,347,872	802,406	586,178
Loans and Advances other than Bills—					
(*a*) Secured.....	23,299,384	33,767,379	30,394,680	28,399,008	27,832,029
(*b*) Unsecured.....	3,707,352	8,425,336	5,408,059	5,212,619	4,855,342
Balances due by Head Offices and other Branches.....	8,185,087	12,629,724	12,862,325	11,449,822	12,422,897
Advances—					
(*a*) To Government.....	—	—	3,342	—	236,766
(*b*) To Public Bodies.....	2,309,541	1,417,508	1,128,306	1,226,541	1,015,476
Landed Property other than Bank Premises.....	371,919	234,683	529,008	609,842	544,783
Bank Premises, Furniture.....	1,508,662	2,290,120	2,437,471	2,408,486	2,295,589
Other Assets.....	9,182,048	1,883,983	2,003,874	2,544,462	2,610,184
TOTAL.....£	74,701,425	111,260,076	100,631,978	100,061,649	103,065,083

* Included in "Other Assets."

(iv) JOINT-STOCK BANKS—ASSETS OF EACH BANK, 31st DECEMBER, 1925.

Heading.	Standard Bank of South Africa, Ltd.	National Bank of South Africa, Ltd.	Netherlands Bank of South Africa.	Stellenbosch District Bank, Ltd.	Colonial Banking and Trust Company, Ltd.	Total.
	£	£	£	£	£	£
Coin and Gold Certificates in hand and in Transit....	2,065,243	829,408	29,706	784	491	2,925,632
Bullion in hand and in Transit.....	38,168	66,947	—	—	—	105,115
Balances held in S.A. Reserve Bank.....	3,242,818	2,082,295	248,645	18,650	15,306	5,607,714
Money at Call or Short Notice	2,935,000	1,582,500	21,228	—	—	4,538,728
Notes of other Banks.....	442,784	477,825	11,826	39	221	932,695
Notes of S.A. Reserve Bank	1,468,503	713,202	49,124	3,239	630	2,234,698
Balances due by other Banks	335,051	1,552,524	103,802	34,736	14,712	2,040,825
Securities—						
(*a*) Union Government...	2,015,609	1,493,083	50,000	—	—	3,558,692
(*b*) British and Colonial Governments.....	4,026,571	1,892,854	26,400	—	—	5,945,825
(*c*) Other Securities.....	263,875	616,630	53,819	—	321,615	1,255,939
Bills under Discount—						
(*a*) Current.....	12,870,965	7,734,416	883,281	27,657	3,657	21,519,976
(*b*) Overdue and unpaid..	445,474	131,706	7,099	1,225	674	586,178
Loans and Advances other than Bills—						
(*a*) Secured.....	17,378,881	9,380,968	706,529	176,731	188,920	27,832,029
(*b*) Unsecured.....	3,205,422	1,534,181	54,947	44,481	16,311	4,855,342
Balances due by Head Offices and Branches.....	4,938,504	6,870,321	589,410	—	24,662	12,422,897
Advances—						
(*a*) To Government.....	—	236,766	—	—	—	236,766
(*b*) To Public Bodies....	656,624	348,585	732	9,535	—	1,015,476
Landed Property other than Bank Premises.....	426,017	106,948	11,818	—	—	544,783
Bank Premises, Furniture..	1,260,349	937,771	82,613	6,350	8,506	2,295,589
Other Assets.....	1,976,481	139,712	462,349	4,373	27,269	2,610,184
TOTAL..... £	59,992,339	38,728,642	3,393,328	327,800	622,974	103,065,083

9. **Joint-Stock Banks : Liabilities and Assets in the Union.**—Full details of the liabilities and assets in the Union of the Joint-Stock Banks are available only from 1917. Prior to that year the information is incomplete, but sufficient details are available for the years 1913 to 1916 to make it possible to construct tables comparable with later years. For instance, Subscribed Capital, Paid-up Capital, Reserve Fund and Notes in circulation are known, and figures for Deposits and for Bills and Advances, obtained from the Standard Bank in London, were published in the report of the Gold Standard Inquiry Commission. The figure for Coin and Bullion has also been obtained from the same source, and a few other items have been estimated. For the years 1913 to 1916, it was, however, found impossible to make any satisfactory estimates for " Balances due to or by Head Office and other Branches and Banks."

The following tables give (i) the Liabilities and (ii) the Assets of the Joint Stock Banks for the years 1913 to 1925, inclusive.

(i) JOINT-STOCK BANK—LIABILITIES IN THE UNION AS AT 31st DECEMBER IN EACH YEAR—1913 TO 1919.

	1913.	1914.	1915.	1916.	1917.	1918.	1919.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Subscribed Capital.....	4,108	2,774	2,805	2,817	2,867	2,882	2,982
Paid-up Capital.....	2,858	2,765	2,796	2,808	2,858	2,873	2,973
Reserve Fund.....	837	714	541	543	720	872	1,074
Notes in Circulation.....	2,254	2,357	2,687	3,384	4,527	6,269	7,985
Government Deposits.....	*	*	*	*	2,872	3,495	6,270
Savings Bank Deposits....	*	*	*	*	1,017	1,570	2,140
Deposits payable after notice or on a fixed date	16,248	16,556	18,541	18,570	21,702	26,587	34,675
Deposits on Current Account.....	17,961	19,112	22,378	25,229	26,333	31,732	44,789
Balances due to other Banks	—	—	—	—	298	266	549
Balances due to Head Office and Other Branches....	—	—	—	—	557	622	244
Bills Payable.....	78	73	72	114	147	117	199
Other Liabilities.....	1,436	1,308	1,493	1,712	1,940	2,544	3,213
TOTAL.....£	—	—	—	—	62,971	76,947	104,111
Total, excluding Balances due to other Banks and to Head Office and Branches £	41,672	42,885	48,508	52,360	62,116	76,059	103,318

* Included in "Deposits on Current Account."

JOINT-STOCK BANKS—LIABILITIES (*continued*) IN THE UNION AS AT 31ST DECEMBER IN EACH YEAR—1920 TO 1925.

	1920.	1921.	1922.	1923.	1924.	1925.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Subscribed Capital.....	2,982	3,002	3,002	2,112	2,112	2,112
Paid-up Capital.....	3,073	2,994	2,993	2,104	2,104	2,104
Reserve Fund.....	1,278	1,360	1,063	66	218	370
Notes in Circulation.....	9,066	8,764	1,235	570	—	—
Government Deposits.....	4,884	3,203	3,067	3,001	2,044	3,222
Savings Bank Deposits.....	2,439	2,777	2,835	2,697	2,895	3,093
Deposits payable after notice or on a fixed date.....	34,508	33,391	28,994	23,413	22,245	20,520
Deposits on Current Account	36,075	30,484	29,854	31,980	30,866	33,277
Balances due to other Banks.	599	352	1,451	315	445	280
Balances due to Head Office and Other Branches.....	1,639	351	281	514	392	468
Bills Payable.....	239	113	192	206	151	143
Other Liabilities.....	3,426	4,320	2,964	2,404	3,384	3,417
TOTAL.....£	97,226	88,109	74,929	67,270	64,744	66,894
Total, excluding Balances due to other Banks and to Head Office and Branches.....£	94,988	87,406	73,197	66,441	63,907	66,146

(ii) JOINT-STOCK BANKS—ASSETS IN THE UNION AS AT 31st DECEMBER IN EACH YEAR—1913 TO 1919.

	1913.	1914.	1915.	1916.	1917.	1918.	1919.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Coin and Gold Certificates in hand and in transit	7,064	6,307	6,587	5,558	6,128	6,845	7,263
Bullion in hand and in Transit					44	6	40
Balances held, S.A. Reserve Bank	—	—	—	—	—	—	—
Notes of Other Banks	184	309	332	338	389	516	657
Notes of S.A. Reserve Bank	—	—	—	—	—	—	—
Balances due by Other Banks	—	—	—	—	290	338	593
Securities—							
(*a*) Union Government	1,972	2,225	2,481	2,548	1,904	2,346	2,790
(*b*) British and Colonial Govts.					634	—	—
(*c*) Other Securities					90	107	479
Bills under Discount—							
(*a*) Current	8,630	6,294	6,814	7,909	9,415	13,809	14,674
(*b*) Overdue and Unpaid					404	420	283
Loans and Advances Other than Bills—							
(*a*) Secured	24,324	23,403	23,338	28,917	18,354	21,102	24,830
(*b*) Unsecured					6,053	10,892	13,603
(*c*) to Government					—	—	—
(*d*) to Public Bodies					1,616	2,279	2,151
Balances due by Head Offices and Branches	—	—	—	—	11,842	11,029	31,124
Landed Property other than Bank Premises	1,389	1,334	1,280	1,633	312	196	149
Bank Premises, Furniture					1,449	1,417	1,524
Other Assets					1,538	1,545	1,915
TOTAL.....£	—	—	—	—	60,462	72,847	102,075
Total, excluding Balance due by Other Banks and by Head Office and Branches.....£	43,563	39,872	40,832	46,903	48,330	61,480	70,358

JOINT-STOCK BANKS—ASSETS (*continued*) IN THE UNION AS AT 31st DECEMBER IN EACH YEAR—1920 TO 1925.

	1920.	1921.	1922.	1923.	1924.	1925.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Gold and Coin Certificates in hand and in Transit	10,342	7,106	1,741	1,455	1,240	1,869
Bullion in Hand and in Transit	23	25	40	71	63	45
Balances held, S.A. Reserve Bank	—	6,518	5,156	4,872	4,624	5,608
Notes of Other Banks	564	192	86	40	70	75
Notes of S.A. Reserve Bank	—	—	2,937	3,085	2,962	2,216
Balances due by Other Banks	88	210	247	213	187	138
Securities—						
(*a*) Union Government	2,928	3,147	1,982	1,669	2,638	2,900
(*b*) British and Colonial Governments	—	—	—	—	—	7
(*c*) Other Securities	686	1,137	935	1,020	856	1,052
Bills under Discount—						
(*a*) Current	20,290	13,662	9,787	8,272	8,127	10,752
(*b*) Overdue and Unpaid	738	1,115	1,068	815	510	445
Loans and Advances other than Bills—						
(*a*) Secured	28,282	26,457	26,028	23,660	22,140	21,726
(*b*) Unsecured	18,057	11,529	7,128	4,966	4,836	4,475
(*c*) to Government	—	—	—	—	—	237
(*d*) to Public Bodies	2,544	2,431	1,189	1,098	1,095	828
Balances due by Head Offices and Branches	5,799	10,559	12,341	12,335	11,089	11,850
Landed Property other than Bank Premises	123	110	174	382	452	403
Bank Premises, Furniture	1,799	1,848	1,824	1,858	1,811	1,721
Other Assets	3,017	737	820	746	924	598
TOTAL.....£	95,280	86,783	73,483	66,557	63,624	66,945
Total excluding Balance due by Other Banks and by Head Office and Branches.....£	89,393	76,014	60,895	54,009	52,348	54,957

10. **Clearing-House Returns.**—On account of the fact that banking in South Africa is almost entirely confined to a few large corporations and transactions between different branches of the same bank are not put through a clearing house, the Clearing House Returns in the Union, though not without considerable interest, must be interpreted with caution. Clearings take place in every town in which two banks have branches and the returns of the seven chief towns are given below. Since the South African Reserve Bank commenced business, clearing-house settlements throughout the country have been effected by drawing

on balances with the Reserve Bank. The South African Reserve Bank is in effect the clearing-house of all the clearing-houses, and this fact must be remembered in connection with the Pretoria returns from July, 1921.

CLEARING-HOUSE RETURNS 1913 TO 1925.

Date.	Cape Town.	Port Elizabeth.	Durban.	Pretoria.	Johannesburg.	Bloemfontein.	East London.
	£	£	£	£	£	£	£
1913.....	23,769,034	—	24,060,323	13,424,323	112,111,160	3,211,517	—
1914.....	24,393,584	9,342,806	19,535,668	10,953,854	93,407,606	2,755,797	—
1915.....	28,641,311	12,580,789	16,673,450	10,833,170	90,132,962	3,071,767	—
1916.....	34,849,874	12,232,312	22,880,654	11,701,350	118,523,609	3,229,903	—
1917.....	41,753,646	14,201,755	32,072,075	15,798,122	134,589,563	4,482,051	—
1918.....	50,060,818	17,540,798	42,524,163	16,759,192	150,630,942	5,371,570	—
1919.....	62,675,555	24,446,692	53,327,782	23,230,791	184,690,263	7,018,660	—
1920.....	83,392,260	20,938,775	62,929,900	32,383,707	240,570,144	9,231,937	—
1921.....	56,243,682	14,929,298	44,813,850	48,600,630	172,336,384	6,233,050	—
1922.....	50,514,803	14,940,310	37,851,835	61,816,160	137,005,248	5,301,420	—
1923.....	52,859,935	16,230,566	39,159,904	70,736,988	133,675,973	5,078,244	4,469,356*
1924.....	55,898,434	18,976,813	42,352,230	73,234,181	142,186,978	6,100,101	10,461,273
1925.....	58,245,754	18,456,376	44,052,160	104,458,806	190,329,893	7,536,228	10,356,182

* July to December.

11. **Average Exchange Rates.**—The average exchange rates, *South Africa on London*, for each year for the last sixteen years are published below. The calculations have been confined solely to the Telegraph Transfer, Sight, and Ninety Days' Sight Buying and Selling Rates. The seventh column, headed the "Mean Value of £100 Sterling," has been calculated by taking the mean point between the buying and selling T.T. rate, and represents the average price of sterling in terms of South African money. The eighth column, headed "Average Discount Rate per Annum," is calculated from the difference between the ninety days' sight and the T.T. buying rates, the period allowed for sight being taken as twenty days; it represents the average annual discount rate charged by the banks on money advanced on exporters' bills, and eliminates charges for exchange accommodation.

During the sixteen years, the highest mean value of sterling was £105; this took place between 30th November, 1920, and 5th January, 1921, and the lowest £92⅜ as between 1st May, 1920, and the 15th June, 1920.

The highest discount rate on ninety days' sight was 11·614 per cent. per annum, between 4th August, 1920, and 7th August, 1921, and the lowest, 3·940 per cent. per annum, between 1st March, 1911, to the 6th October, 1913, and again from the 16th February, 1914, to the 3rd August, 1914.

The greatest margin between the T.T. buying and selling rates was 2⅞ per cent. between the 12th February and 7th March, 1920, and the smallest, ⅜ per cent., between 11th March, 1910, and 25th April, 1910.

AVERAGE ANNUAL EXCHANGE RATES, SOUTH AFRICA ON LONDON (1910–25).

Discount Rates, unless figures followed by "P"—Premium.

Year.	Buying Rates.			Selling Rates.			Mean Value of £100 Sterling.	Average Discount Rate per Annum.
	Telegraph Transfers.	Sight.	Ninety Days' Sight.	Telegraph Transfers.	Sight.	Ninety Days' Sight.		
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1910...	0·374	0·578	1·767	0·104P	0·025P	0·965	99·865	4·62
1911...	0·438	0·625	1·676	0·063P	0·000	1·000	99·812	4·11
1912...	0·438	0·625	1·625	0·063P	0·000	1·000	99·812	3·94
1913...	0·438	0·625	1·684	0·063P	0·000	1·000	99·812	4·12
1914...	0·415	0·588	1·947	0·248P	0·157P	1·000*	99·916	5·08
1915...	0·375	0·500	2·250	0·382P	0·257P	Not Quoted.	100·003	6·22
1916...	0·375	0·500	2·250	0·313P	0·187P	,,	99·969	6·22
1917...	0·375	0·710	2·460	0·313P	0·187P	,,	99·969	6·92
1918...	0·375	0·750	2·500	0·313P	0·187P	,,	99·969	7·05
1919...	0·409	0·626	2·395	0·271P	0·154P	,,	99·931	6·59
1920...	1·930	2·485	5·022	0·953	1·165	2·328	98·558	10·26
1921...	0·238	0·888	3·488	0·762P	0·512P	0·613	100·262	10·78
1922...	1·704	2·151	4·160	0·786	1·036	1·916	98·755	8·15
1923...	2·134	2·509	4·126	1·259	1·479	2·051	98·303	6·61
1924...	2·880	3·255	4·818	2·005	2·193	2·568	97·557	6·43
1925...	0·608	0·981	2·538	0·009P	0·173	0·549	99·700	6·40

* Not quoted after 3rd August, 1914.

12. **Bank Rate of Discount.**—The South African Reserve Bank, under Section 12 (3) of the *Currency and Banking Act*, is obliged to "fix and publish from time to time the rates at which it will discount the various classes of bills." The first announcement made on the 29th December, 1922, fixed the following rates :—

6 per cent. for first class commercial bills of not more than 90 days' currency ;
6½ per cent. for first class agricultural bills with a maturity exceeding 90 days but not exceeding six months.

These rates were lowered by ½ per cent. in each case from the 21st November, 1924.

The minimum advance rate previously quoted by the other banks may perhaps be regarded as corresponding to the above rate for the period before the Reserve Bank quoted a rate. The rates for a period of ten years were :—2nd February, 1913, 6 per cent.; September, 1915, 6½ per cent. (Coastal 6 per cent.); 1st March, 1920, 7 per cent. ; 16th August, 1920, 7½ per cent. ; 1st May, 1922, 7 per cent.

13. **Bank Amalgamations.**—An amalgamation of the National Bank of South Africa with the Colonial Bank and the Anglo-Egyptian Bank took place by means of a reincorporation of the Colonial Bank, under the title Barclays Bank (Dominion, Colonial, and Overseas), and its acquisition by an exchange of shares of the entire interest of shareholders in the other two banks.

The registered capital of the bank is £10,000,000, and the following shares have been issued :—

8 per cent. cumulative preference shares of £1 each, fully paid	£1,793,000
"A" Shares of £1 each, fully paid	2,682,500
"B" Shares of £5 each, £1 paid	500,000
	£4,975,500

The £7 shares of the National Bank were exchanged for two 8 per cent. cumulative preference shares of £1 each, fully paid, and five "A" shares of £1 each, fully paid, in all 2,075,500 shares.

The shares of the Colonial Bank were exchanged for 600,000 preference, and 300,000 "A" shares, and of the Anglo-Egyptian bank for 600,000 preference, and 900,000 "A" shares.

Barclays Bank, Ltd., subscribed for the 500,000 "B" shares of £5 each, paying £1 and a premium, which enabled the reincorporated Bank, after making certain adjustments and adding to the internal reserves, to fix the published reserve fund at the initial stage at £1,000,000.

The voting power of the "B" shares is fixed so as to give Barclays Bank, Ltd., apart from their other shares (they held over 94 per cent. of the shares of the Anglo-Egyptian Bank), the controlling interest.

The amalgamation of the National Bank of South Africa took place in the Union on the 27th February, 1926.

An amalgamation between the Netherlands Bank of South Africa, Limited, and the Transvaal Commercial Bank, Limited, took place on the 5th May, 1925. The former took over all the assets and liabilities of the latter, the shareholders of which obtained paid-up capital of the Netherlands Bank at the rate of 8 guilders in exchange for each 7 guilders of paid-up capital of the Transvaal Commercial Bank.

14. **People's Banks.**—There are three banks in the Union which may be classified under the general designation of "People's Banks." They are run on a quasi-philanthropic basis, their main object being to assist on a commercial basis persons who would ordinarily have recourse to the money-lender. The rate of interest at which they lend may at first sight appear high, but it must not be overlooked that this includes the costs of investigation and the collection of interest monthly on small sums. This work involves an amount of book-keeping quite out of proportion to the amount of money turned over.

(i) *Ons Eerste Volksbank.*—"Ons Eerste Volksbank," which commenced operations in Pretoria in 1918, was the first example of a *People's Bank* in the Union. The original capital of £250, upon which no interest was paid, has been reduced to the nominal amount of £2. 10s. The profits for each year are distributed half to the Reserve Fund, and half to members in proportion to the interest paid to or received by them, provided that they attend one general meeting during the year, or produce satisfactory reasons for their non-attendance.

Advances are made on promissory notes signed by two guarantors. The original rate of interest of 6d. per £1 per month, or 30 per cent. per annum, was reduced at the beginning of 1925 to 5d. per £1 per month, or 25 per cent. per annum, and again, from the beginning of 1926, to 4d. per £1 per month, or 20 per cent. per annum.

Interest paid on current Savings Bank Accounts is at the rate of 6 per cent. per annum; on fixed deposits for six months, 7 per cent.; and for twelve months, 8 per cent.

The following table gives the *Reserve*, *Deposits*, and *Loans* of the bank at the end of each year since 1918.

ONS EERSTE VOLKSBANK.

RESERVE, DEPOSITS, LOANS, ETC., 1918–1925.

31st December.	Reserve.	Deposits.		Loans.	Mortgages.
		Savings Bank.	Fixed.		
	£	£	£	£	£
1918	266	1,773	2,518	4,362	—
1919	266	3,745	7,324	9,500	349
1920	1,017	7,406	13,072	17,290	2,834
1921	1,952	10,607	14,973	14,940	3,837
1922	2,622	13,204	15,730	16,834	5,765
1923	3,208	15,836	16,155	19,218	6,599
1924	4,240	19,269	19,960	20,931	8,488
1925	6,003	19,312	23,455	25,690	10,491

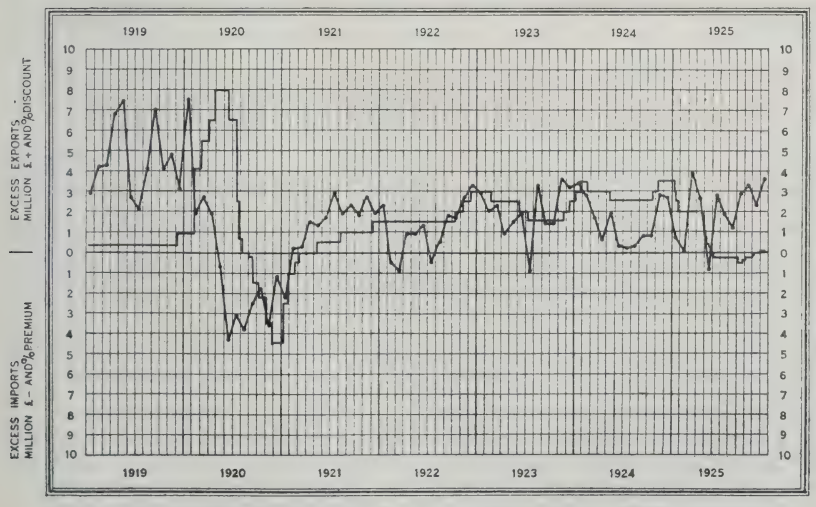
(ii) *African United Loan and Savings Bank, Limited, Bloemfontein.*—This Association was established in 1918 on the lines of "Ons Eerste Volksbank," and the first paragraph above concerning the last-named bank is, with the exception of the first sentence, also applicable in every particular to the Bloemfontein institution.

These two establishments are conducted on identical principles. Hitherto, however, the rate of interest at Bloemfontein has been 6d. per £1 per month, but a reduction to 4d. is now contemplated.

The following table contains particulars of the financial position of the bank each year between 1921 and 1925:—

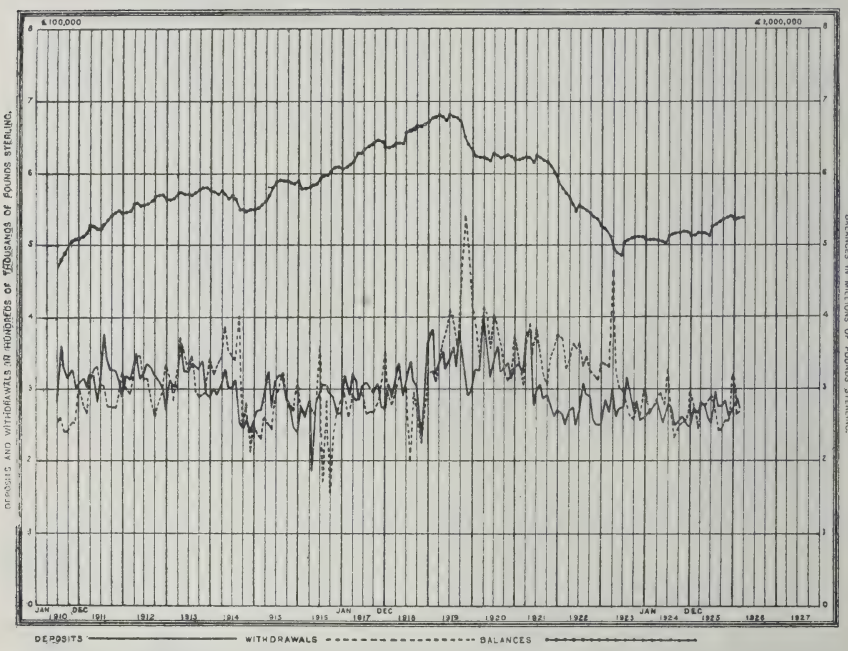
	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Reserve Funds	262	423	597	885	914
Savings Accounts	2,782	3,233	4,055	4,286	5,349
Fixed Deposits	3,805	5,268	7,293	8,325	9,205
Advances	5,981	7,142	8,879	8,646	8,892
Other Investments	232	2,309	3,854	7,618	6,927

COMPARISON OF CHANGES IN THE EXCHANGE RATE ON LONDON WITH THE MONTHLY BALANCE OF VISIBLE TRADE OF THE UNION. 1919 1925.

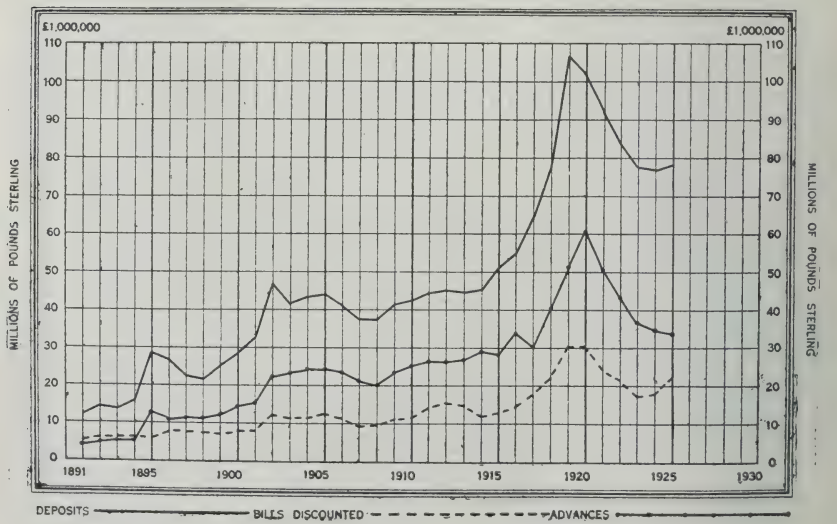


UNION OF SOUTH AFRICA.

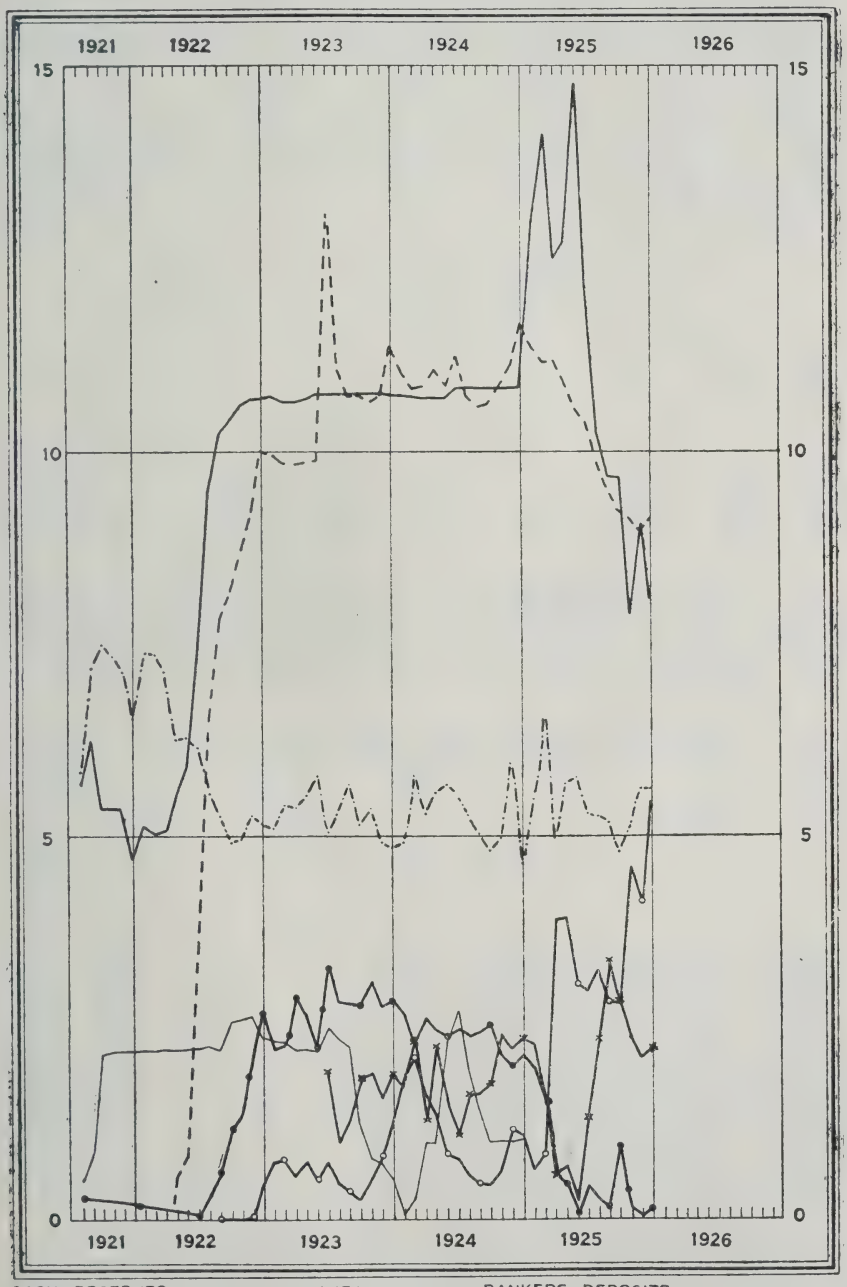
POST OFFICE SAVINGS BANK CURRENT ACCOUNT—MONTHLY TRANSACTIONS AND BALANCES, 1910 TO 1926.


£100,000
£1,000,000
DEPOSITS AND WITHDRAWALS OR HUNDREDS OF THOUSANDS OF POUNDS STERLING.
BALANCES IN MILLIONS OF POUNDS STERLING.
JAN DEC 1910 1911 1912 1913 1914 1915 JAN DEC 1917 1918 1919 1920 1921 1922 1923 JAN DEC 1924 1925 1926 1927
DEPOSITS
WITHDRAWALS
BALANCES

SOUTH AFRICAN BANKS
(EXCLUDING SOUTH AFRICAN RESERVE BANK).
AT 31ST: DECEMBER IN EACH YEAR.



SOUTH AFRICAN RESERVE BANK.



(iii) *O.F.S.T.A. Savings and Credit Society, Ltd.*—The O.F.S.T.A. Savings and Credit Society, Ltd., commenced operations in Bloemfontein in 1922. Its capital consists of £200 from the trust funds of the O.F.S. Teachers' Association, on which 7 per cent. interest is paid, and £21 from private persons, on which no interest is paid.

Interest is paid on Savings Bank Accounts at the rate of 5 per cent. per annum on amounts under £100, and at 6 per cent. on amounts above £100. On twelve-month deposits 7 per cent. is paid.

Money is advanced on promissory notes, with two securities, at the rate of 4d. per £1 per month, or 20 per cent. per annum; but in the case of students, the rate is 8 per cent. in the first year, and 9 per cent. in the second year. Money is also advanced on mortgage at the rate of 8 per cent. In addition to the Reserve Funds, deposits have been made by the Orange Free State and Transvaal Teachers' Associations, and private persons, as a guarantee against bad debts.

The following table gives the *Capital, Reserve, Deposits,* and *Loans* of the Society at the 30th June, in each year, since 1922 :—

O.F.S.T.A. SAVINGS AND CREDIT SOCIETY, LIMITED.

CAPITAL RESERVE, DEPOSITS, ETC., 1922–1925.

On 30th June.	Capital.	Reserve.	Deposits.			Loans.	Advances for Study.	Mortgages.
			Guarantee.	Fixed.	Savings Bank.			
	£	£	£	£	£	£	£	£
1922...	200	—	—	327	—	303	—	—
1923...	207	75	—	4,896	2,003	2,795	—	—
1924...	219	134	—	6,673	5,190	7,210	453	730
1925...	221	602	735	13,058	6,686	11,314	1,009	5,565

15. **Post Office Savings Bank.**—The subjoined statement shows the transactions in depositors' accounts in the Post Office Savings Bank for a period of years. Owing to considerable changes in the accounting system of the Post Office Savings Bank, the Provincial classification has lost significance, and only the figures for the Union as a whole are now given. Earlier issues of the *Year Book* contained particulars of Provincial transactions from 1909–10 to 1919–20.

POST OFFICE SAVINGS BANK, UNION, 1909–10 TO 1924–25.

Year.	Deposits and Interest.	Withdrawals.	Balance Due to Depositors.		Average Amount to Credit of Each Depositor in Current Account.	Accounts.		
			Current Account.	Certificate Account.		Opened.	Closed.	Remaining Open.
	£	£	£	£	£ s. d.	No.	No.	No.
*1909–10..	3,522,327	3,114,262	4,667,162	773,800	22 7 3	52,038	35,689	208,720
†1910–11..	3,121,549	2,558,858	5,229,853	898,600	23 4 5	44,677	28,159	225,238
‡1911–12..	4,309,189	3,960,628	5,578,415	966,800	23 5 1	59,916	45,278	239,876
1912–13..	4,371,933	4,226,923	5,723,425	950,200	23 10 5	58,596	55,154	243,318
1913–14..	4,115,732	4,046,397	5,792,759	879,000	22 16 11	55,830	45,591	253,557
1914–15..	3,560,972	3,625,172	5,728,560	802,400	23 0 7	46,861	51,695	248,723
1915–16..	3,655,816	3,444,153	5,940,223	767,800	22 16 7	53,038	41,565	260,196
1916–17..	3,747,556	3,405,374	6,282,405	670,000	22 15 5	52,279	36,571	275,904
1917–18..	3,862,339	3,591,106	6,553,638	663,700	22 13 10	51,286	38,357	288,833
1918–19..	4,107,832	3,688,596	6,972,575	744,900	22 15 7	52,880	35,610	306,103
1919–20..	4,374,458	4,961,044	6,386,289	693,500	20 15 5	56,843	55,460	307,486
1920–21..	4,353,378	4,325,397	6,414,269	610,900	20 18 4	47,454	48,285	306,655
1921–22..	3,723,721	4,294,803	5,843,187	822,500	19 6 9	40,554	45,068	302,141
1922–23..	3,532,312	4,269,889	5,105,610	1,229,700	17 14 2	36,826	50,636	288,331
1923–24..	3,537,804	3,417,490	5,225,924	1,018,900	17 17 5	42,799	41,547	289,583
1924–25..	3,363,682	3,269,818	5,319,788	934,900	17 9 10	48,183	33,657	304,109

* From 1st July, 1909, to 30th June, 1910. † From 1st July, 1910, to 31st March, 1911.
‡ From 1st April, 1911, to 31st March, 1912.

16. **Other Savings Banks.**—The following tables give particulars of Savings Banks operating in the Union for a period of years. The information was collected under the *Statistics Act.* The figures are exclusive of Savings Bank departments of the joint-stock banks and building societies, details of which are respectively shown in the tables in paragraph 9 above and § 4 hereunder. Statistics of the Post Office Savings Bank are given in the preceding paragraph.

SAVINGS BANKS IN THE UNION, 1919–20 TO 1923–24.

(*a*) NUMBER OF BANKS AND ACCOUNTS.

Year.	Number of Banks.	Accounts Opened During Year.	Accounts Closed During Year.	Accounts Open at End of Year.	
				Current.	Fixed Deposit.
1919–20	8	2,297	1,512	15,283	176
1920–21	9	2,520	1,678	16,047	233
1921–22	9	2,115	1,519	16,628	248
1922–23	8	2,374	1,418	17,372	265
1923–24	8	2,900	1,542	18,680	315

(*b*) DEPOSITS AND INTEREST.

Year	Deposits during Year.		Withdrawals.		Deposits at End of Year.		Interest Added.
	Current.	Fixed.	Current.	Fixed.	Current.	Fixed.	
	£	£	£	£	£	£	£
1919–20	405,873	8,079	376,970	1,921	802,474	13,622	32,515
1920–21	428,247	9,729	401,136	4,572	871,879	18,779	40,232
1921–22	411,880	7,680	405,741	5,461	920,057	20,999	43,420
1922–23	483,132	8,845	417,664	6,395	1,030,517	23,449	45,799
1923–24	567,307	12,465	448,948	6,129	1,148,875	29,785	52,201

(*c*) LIABILITIES.*

Year.	Deposits with Interest.	Reserve Fund.	Other Funds.	Other Liabilities.	Total
	£	£	£	£	£
1919–20	816,096	211,480	51,006	1,113,380	2,191,962
1920–21	883,691	165,387	42,915	10,891	1,102,884
1921–22	933,211	168,225	44,710	14,512	1,160,658
1922–23	1,045,584	172,669	47,547	19,224	1,285,024
1923–24	1,170,531	179,384	47,942	22,441	1,420,298

(*d*) ASSETS.*

Year.	Securities.		Loans.	Landed and House Properties.	Cash in Hand and on Deposit.	Other.	Total.
	Union Government.	Other.					
	£	£	£	£	£	£	£
1919–20	298,220	18,865	1,314,275	65,030	98,419	397,153	2,191,962
1920–21	135,741	20,615	818,811	27,227	82,290	18,200	1,102,884
1921–22	135,341	19,036	898,011	25,575	62,557	20,138	1,160,658
1922–23	140,634	19,036	1,007,375	29,565	66,532	21,882	1,285,024
1923–24	146,327	19,036	1,111,514	34,082	85,016	24,323	1,420,298

* Particulars of liabilities and assets of three Savings Banks in 1920–21, and two in 1921–22 and 1922–23, are not given owing to these being merged with other business conducted by those institutions.

17. **Union Loan Certificates.**—Act No. 20 of 1919 authorized the raising of money by means of *Union Loan Certificates*. These certificates offer a suitable investment for small sums in a Government security, bearing a high rate of interest, if left to mature, free of Union income tax and super tax. Certificates of nominal value £1, £10, and £25, and forms of application for Certificates of larger amounts are obtainable at any money order office in the Union and South West Africa. No individual person is entitled to hold more than £1,000 (face value). Limited liability or other registered companies, partnerships, or public bodies are not permitted to hold certificates, but friendly, charitable and provident societies, clubs, and

funds, approved of by the Postmaster-General, may invest, and provided they can produce a certificate from the Commissioner for Inland Revenue certifying that their funds are wholly exempt from income tax, there is no limit to their investments. The purchase price of a single certificate (originally 15s. 6d.) was changed to 16s. on 8th April, 1923, and after the expiration of twelve months from the date of issue, the value thereof increases at the rate of one penny per month, with a bonus of 3d., 3d., and 6d. added at the end of the eighth, ninth, and tenth years respectively, so that at the end of five years the value is 20s. and at the end of ten years, 26s. The currency of these certificates, which originally was fixed at five years, has been extended to ten years from date of purchase. In the case of an individual holding certificates maturing at different dates, the earliest dated certificates may be held until due date of the latest certificates of same price of issue and will bear simple interest at one penny per month per unit. The purchase price, together with any accrued interest, is repayable at short notice any time prior to the date of maturity, on application to the Accountant, Union Loan Certificate Section, Pretoria (in the case of certificates issued at Transvaal or Natal offices) or Cape Town (in the case of certificates issued at Cape and Orange Free State offices). Repayment of any portion of a certificate may be obtained provided it is a multiple of 15s. 6d. or 16s. (as the case may be).

The annual compound interest rates at an issue price of 15s. 6d. are 5·23 per cent. for five years, and 5·31 per cent. for ten years, and at an issue price of 16s., 4·56 per cent. for five years and 4·97 per cent. for ten years.

The total number of individual holders of single and multiple certificates is estimated at between 80,000 and 90,000.

The following table shows the number of units and value of Union Loan Certificates issued and repaid.

NUMBER AND VALUE OF UNION LOAN CERTIFICATES ISSUED AND REPAID TO 31st DECEMBER, 1925,

Date.	Number.			Amount.*			Interest. Paid.
	Issued.	Repaid.	Balance.	Issued.	Repaid.	Balance.	
	Units.	Units.	Units.	£	£	£	£
30th Sept., 1923....	6,699,002	1,401,311	5,297,691	5,204,387	1,086,479	4,117,908	52,559
31st Dec., 1923....	6,964,076	1,534,338	5,429,738	5,416,446	1,190,257	4,226,189	59,758
31st March, 1924...	7,171,449	1,677,044	5,494,405	5,582,344	1,301,641	4,280,703	67,797
30th June, 1924....	7,327,350	1,827,951	5,499,399	5,717,065	1,429,426	4,287,639	76,670
30th Sept., 1924...	7,476,226	1,992,528	5,483,698	5,826,166	1,547,881	4,278,285	91,444
31st Dec., 1924....	7,670,270	2,362,159	5,308,111	5,981,402	1,835,471	4,145,931	153,911
31st March, 1925...	7,867,608	2,601,815	5,265,793	6,139,272	2,022,439	4,116,833	190,107
30th June, 1925...	8,098,212	2,800,736	5,297,476	6,323,755	2,178,007	4,145,748	214,323
30th Sept., 1925...	8,326,525	2,986,736	5,339,789	6,506,406	2,323,627	4,182,779	238,942
31st Dec., 1925....	8,568,536	3,176,804	5,391,732	6,700,015	2,472,412	4,227,603	265,134

* Calculated at Issue Value of Certificates, i.e. 15s. 6d. per unit, up to the 8th April, 1923, and thereafter 16s. per unit.

18. **Savings Clubs.**—The object of the Union Loan Certificate issue is not only to raise money but also to encourage thrift among the people, and in order to foster that ideal a central committee, with headquarters at the General Post Office, Cape Town, has been appointed by the Government. The functions of the committee include the establishment of local committees in appropriate centres, the adoption of schemes for promoting thrift, and control of the club movement.† Special facilities for the accumulation of small sums for investment in Union Loan Certificates are provided by means of the savings clubs. These clubs can be formed among groups of people in the same office, business house, factory, school, society, etc., provided not less than five members are enrolled, the necessary books being supplied free of charge. Each club appoints its own treasurer, who accepts deposits of small amounts from members, and immediately invests the collective savings in Union Loan Certificates. These certificates are subsequently distributed among members. The club scheme was commenced at Cape Town in March, 1920, and clubs are now established in almost all the principal towns of the Union. A number of clubs registered have become defunct, due principally to the industrial depression. On the 31st March, 1925, there were 1,028 clubs on the register, of which 313 were school clubs. The certificates purchased amounted to 21,955 units, school clubs being responsible for 10,071. The repayments total 13,764 units.

† The original Union Loan Certificates Committee, formed in May, 1922, was dissolved in September, 1924, and its place was taken by the National Thrift Committee, appointed by the Minister of Finance, with similar functions.

§ 3. Land and Agricultural Bank of South Africa.

1. **Establishment.**—The Land and Agricultural Bank of South Africa was established on the 1st October, 1912, by Act No. 18 of 1912. Prior to that date a land bank existed in the Transvaal under the name of *The Transvaal Land and Agricultural Bank* (Act No. 26 of 1907); in the Orange Free State as *The Land and Agricultural Loan Fund* (Act No. 33 of 1909); and in Natal also under the name of *The Land and Agricultural Loan Fund* (Act No. 27 of 1907). In the Cape of Good Hope *The Agricultural Credit Bank Act*, No. 25 of 1907, was passed, but remained inoperative. On the 1st October, 1912, the three provincial banks ceased to exist, and their assets and liabilities were transferred to and vested in *The Land and Agricultural Bank of South Africa*, referred to for convenience as *The Union Land Bank*.

The Union Land Bank took over the assets and liabilities of the three provincial banks at such an amount "as may be mutually agreed between the Minister of Finance and the central board of the bank." Under that agreement the value of the assets and liabilities of the Transvaal and Natal banks were taken at the figure shown in the balance-sheets as at the 30th September, 1912, but in the case of the Orange Free State bank the balance-sheet figures were reduced by £3,560, the assets *Advances against Promissory Notes* (£105,960) and the liability *Reserve Funds* (£4,816) being reduced by the amount mentioned.

2. **Capital.**—*The Union Land Bank* commenced business on the 1st October, 1912, with a capital of £2,735,000, derived from the provincial banks in the proportions shown above. Its capital is not fixed, and consists of the amount mentioned, together with—

(*a*) such further moneys as Parliament may from time to time by appropriation authorize the Minister of Finance to pay to the bank;

(*b*) such amounts as the bank may recover in respect of advances for constructing dipping tanks and erecting fences made by the Union Government under Act No. 20 of 1911, by the Natal Government under Act No. 20 of 1910, and by the Cape Government under Acts No. 43 of 1905 and No. 37 of 1909 and Government Notice No. 1283 of 1909; and

(*c*) such further amounts as the Bank was authorized to raise, under Section 3 of Act No. 36 of 1921 and Act No. 40 of 1922 for the purpose of financing co-operative societies by means of—

(i) discounting with other banks, bills of co-operative societies,
(ii) overdrafts with other banks,
(iii) issuing "Land Bank bills," and
(iv) receiving moneys on deposit withdrawable at not less than one month's notice.

The further moneys authorized by Parliament are: 1912–13, £400,000; 1913–14, £1,225,000; 1914–15, £750,000; 1917–18, £225,000; 1918–19, £400,000; 1919–20, £300,000; 1920–21, £250,000; 1921–22, £500,000; 1922–23, £500,000; 1923–24, £830,000; 1924–25, £700,000; total, £6,080,000.

Out of the 1913 vote an amount of £200,000 was not drawn, and the 1915 vote o £750,000 was surrendered at the express request of the Minister of Finance. Of the 1924–25 vote, £557,117 was drawn by the bank at the 31st December, 1924, so that of the various amounts voted by Parliament, an amount of £4,987,117 was actually drawn at this date. The dipping-tank and fencing advances handed to the bank for collection amounted, at the 1st October, 1912, to £364,382, in respect of which a sum of £360,617 has been recovered. Out of this amount £216,659 has been credited to the capital account of the bank. At the 31st December, 1924, the bank's capital was, therefore, as follows :—

LAND AND AGRICULTURAL BANK—CAPITAL FUND AT 31st DECEMBER, 1924.

Heading.	Amount.
	£
Capital Funds transferred from Provincial Land Banks, 1st October, 1912..	2,735,000
Parliamentary Appropriations since 1st October, 1912.....	4,987,117
Portion of Dipping-Tank and Fencing Advances Recoveries.....	216,659
Reserve Fund (non-interest bearing capital).....	382,145
TOTAL.....£	8,320,921

3. **Cost of Capital.**—The Act provides that the bank shall pay interest at the rate of 3¾ per cent. per annum on its capital, but this rate may be increased or reduced by resolution of Parliament, and it is further provided that the bank shall not pay a higher rate than is recovered on any advances made by any of the Provincial banks. By resolution, Parliament, in 1914, increased the rate to 4 per cent. per annum on amounts paid to the bank after the 1st April, 1914. The only advances bearing interest at a lower rate than 3¾ per cent. were made by the Transvaal Land Bank under the *Fencing Act*, No. 12 of 1908, at the rate of 3½ per cent. The capital amount involved is being steadily reduced.

The cost of capital to the bank is, therefore, as follows: 3½ per cent. on £167; 3¾ per cent. on £4,376,660; 4 per cent. on £925,000; 5·19761 per cent. on £250,000; 5 per cent. on £1,330,000; 6 per cent. on £500,000; and 5·1465 per cent. on £557,117; average rate, 4·66 per cent.

4. **Management and Control.**—(i) *The Central Board.*—The bank is a body corporate and its operations and policy are controlled by a central board consisting of a Managing Director (who is chairman) and five ordinary members, each of whom is nominated by the Governor-General. The central board meets in Pretoria, where the bank's head office is situated.

(ii) *Local Boards.*—In addition to the central board, there are local boards consisting of three members, who are also nominated by the Governor-General. These local boards are purely advisory, and have been established (1) at Cape Town for the Cape Western area, (2) at Port Elizabeth for the Cape Eastern area, (3) at Bloemfontein for the Orange Free State area, and (4) at Pietermaritzburg for the Natal area. In fixing the four areas mentioned the provincial boundaries were deliberately ignored. Thus for the bank's purposes the Orange Free State and Transvaal areas include certain districts which geographically fall in the Cape Province. Similarly the Natal area extends beyond the geographical boundaries of that Province.

(iii) *Agents for the Bank.*—Every magistrate, field-cornet, and police officer and the Postmaster-General and any officer under him, are by law appointed agents of the bank, when required by the central board to assist in any matter.

(iv) *Staff.*—The bank is not a department of State, and its officers are not members of the Public Service, although its officers may include seconded members of the Public Service.

At the 31st December, 1924, the bank's staff consisted of eighty-eight officers, of whom eight were seconded from the Public Service. Whilst the seconded officers contribute to the various pension funds of the Public Service, the bank established on the 1st May, 1916, a superannuation fund for its own officers, to which it contributes on the £1 for £1 principle. The contributions by officers are limited to 4 per cent. per annum of their respective salaries.

(v) *Cost of Administration.*—The following figures represent the cost of administering the bank from the year 1913, relative to the value of the funds administered in each year: For 1913, ·662 per cent.; for 1914, ·714 per cent.; for 1915, ·573 per cent.; for 1916, ·634 per cent.; for 1917, ·617 per cent.; for 1918, ·664 per cent.; for 1919, ·669 per cent.; for 1920, ·768 per cent.; for 1921, ·849 per cent.; for 1922, ·729 per cent.; 1923, ·713 per cent.; and for 1924, ·741 per cent.

5. **Operations of the Bank.**—(i) *Objects and Powers.*—The main objects of the bank are to make advances—

(*a*) to farmers against the security of first mortgage on agricultural or pastoral land. The maximum advance is £2,000 to any one farmer, and the advance cannot exceed 60 per cent. of the value placed by the Central Board on the land;

(*b*) to agricultural co-operative societies and companies and to guarantee the fulfilment of contracts undertaken by co-operative societes and companies individually or by some organization acting for a group of them. In a "society" members are jointly and severally liable for its debts; in a "company" members' liability is limited to the nominal value of shares subscribed for by them and to any contingent liability attaching to those shares;

(*c*) to farmers to erect boundary and internal fences, to construct dipping-tanks, to construct silos and other contrivances for the making or storage of ensilage, to provide a supply of water, by boring or otherwise, and to erect windmills or other mechanical contrivances for pumping water;

(*d*) to settlers who hold land from the Crown under agreement of purchase or lease. Repayment of these loans is guaranteed by the Minister of Lands.

(ii) *Relief of Distress caused by Drought*—In 1924 Parliament approved of advances being made to farmers in distress through severe losses in stock and crops caused by drought, mainly in the western Transvaal, western Orange Free State and north-western districts of the Cape. £500,000 was provided by Parliament for that purpose to be used in making

advances in kind. That amount does not form part of the bank's funds, but the bank's machinery is being used to administer the fund. The control of this matter was vested in the Managing Director personally, and the central board is in no way concerned with it.

(iii) *Tenant-farmer Scheme.*—The bank's machinery is also being used to pay out and recover the loans made by the Department of Labour under this scheme, which aims at encouraging owners of farms to engage Europeans, who are at present on relief works, as tenants on a share basis.

The Department provided £10,000 for the purpose, up to the 31st December, 1924. The central board is in no way concerned with this matter, the control of which is vested in the General Manager personally.

(iv) *Co-operation amongst Farmers.*—The bank is directly interested in every co-operative society with unlimited liability established by farmers in the Transvaal and Orange Free State Provinces, and it obtains that interest because it has granted loans to such societies. The bank is, however, not responsible for their formation and registration, these matters being governed by the Co-operative Societies Act, No. 28 of 1922, which is administered by the Department of Agriculture.

(v) *Financial Results.*—The loans made by the bank to farmers and agricultural co-operative societies prior to 1921 carried interest at 5 per cent. per annum, with the exception of dipping-tank and fencing loans, for which the rate was 4 per cent. per annum. Since 1921, however, the interest charged has been raised to 6 per cent. on ordinary advances and 5 per cent. on dipping-tank, fencing, silo, and water supply loans. The interest now charged to agricultural co-operative societies is regulated by the cost of raising the money. The profits earned by the bank, from its inception to the 31st December, 1924, are shown in the table hereunder.

The amount of £546,601 shown as net profit, has been placed to a reserve fund, which, together with the amount of £75,926 taken over from the three provincial banks, makes that fund in credit to the extent of £622,527. The Act provides that the reserve fund shall be employed to make good " any loss or deficiency which may occur in any of the transactions of the bank." Up to the present there has been no loss or deficiency, but there was a statutory writing off of £240,381. 16s. 3d. under Section 11 of Act No. 32 of 1924, as a measure of relief granted by Parliament to co-operative societies.

The total earnings of the bank for the period 1st January, 1913, to 31st December, 1924, are shown in the following table as percentages of the bank's capital.

LAND AND AGRICULTURAL BANK.—NET PROFITS AND PROPORTION OF TOTAL EARNINGS TO CAPITAL, 1912 TO 1924.

Year.	Net Profits.	Earnings per cent. of Capital.	Year.	Net Profits.	Earnings per cent. of Capital.
	£			£	
1912.....	8,674*	—	1919...	45,791	5·12
1913.....	30,183	5·00	1920...	45,694	5·24
1914.....	29,852	5·15	1921...	43,959	5·44
1915.....	31,849	4·97	1922...	51,336	6·47
1916.....	31,912	4·99	1923...	67,961	5·59
1917.....	42,378	5·16	1924...	71,707	5·90
1918.....	45,305	5·20			
			TOTAL £	546,601	5·56

* Three months ended 31st December.

The bank's object is not to make large profits, and Act No. 36 of 1921 provides that as soon as the reserve fund and the capital of the bank total such amount as is, in the board's opinion, adequate to enable the bank fully to carry out its objects, an amount determined by the board will be paid to the Minister of Finance out of the profits and the reserve fund of the bank, but, to meet this payment, the amount of the reserve fund may not be reduced below £350,000.

The bank's income now leaves about £800,000 available each year for reinvestment; but owing to the growth of the agricultural industry throughout the Union and the consequent increase in capital requirements, it is still necessary for Parliament to augment the bank's own resources. It is anticipated, however, that the time is not far distant when the bank will be able fully to carry out its objects on its own resources, and that it will be in a position to commence the repayment of its capital.

(vi) *Liabilities and Assets.*—The following table shows the amount of the liabilities and assets of the bank in each year from 1912 :—

LAND AND AGRICULTURAL BANK.—LIABILITIES AND ASSETS ON THE 31st DECEMBER, 1912 TO 1924.

Year.	Liabilities.					Assets.			
						Advances.			
	Capital.	Reserve.	Bills and Deposits.	Other Liabilities.	Total.	Individuals.	Co-operative Societies and Companies.	Other Assets.	Total.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
1912..	2,735	88	—	47	2,870	2,588	229	53	2,870
1913..	3,785	118	2	551	4,456	3,801	293	362	4,456
1914..	4,211	148	6	332	4,697	3,891	417	389	4,697
1915..	4,235	176	7	281	4,699	3,645	344	710	4,699
1916..	4,266	208	3	253	4,730	3,689	348	693	4,730
1917..	4,513	251	1	248	5,013	4,095	440	478	5,013
1918..	4,936	296	1	254	5,487	4,411	491	585	5,487
1919..	5,183	342	—	205	5,730	4,743	377	610	5,730
1920..	5,774*	388	—	280	6,442	5,197	997	248	6,442
1921..	5,995	432	12	287	6,726	5,512	1,001	213	6,726
1922..	6,293	483	97	187	7,060	6,111	753	196	7,060
1923..	7,049	551	216	221	8,037	6,989	845	203	8,037
1924..	7,698	622†	290	231	8,841	7,908	698	235	8,841

* Including £250,000 special advance from the Treasury.
† See reference in par. (v) above regarding statutory writing off of £240,381. 16s. 3d.

(vii) *Statistics of Ordinary Operations.*—Full statistics of the ordinary operations of the bank are given in the subjoined tables: Table (*a*) shows, for a series of years, the number of applications for ordinary advances under Act No. 18 of 1912, the amount involved and particulars as to applications granted and advances paid out. Tables (*b*) and (*c*) give further particulars as to advances paid out by the bank. Table (*d*) contains details regarding co-operative societies which received advances from the bank from 1914.

(*a*) **APPLICATIONS FOR ADVANCES, 1913 TO 1924.**

Year.	Applications Received.		Applications Granted.		Total Advances Paid Out.		Average Amount.	Value of Securities.
	Number.	Amount.	Number.	Amount.	Number.	Amount.		
		£		£		£	£	£
1913...	3,874	2,706,994	3,091	1,749,130	2,636	1,530,060	584	3,418,670
1914...	1,268	451,329	1,025	293,084	1,097	354,364	323	818,561
1915...	401	176,354	322	131,655	291	117,365	403	262,412
1916...	2,022	1,039,496	1,715	713,030	1,254	474,378	378	970,484
1917...	2,299	1,467,758	1,997	1,069,590	1,812	937,920	518	1,906,212
1918...	2,200	1,524,739	1,953	1,167,470	1,699	948,345	558	1,856,900
1919...	2,662	1,976,221	2,338	1,495,910	1,871	1,172,530	627	2,318,487
1920...	2,978	2,463,270	2,579	1,775,440	2,016	1,421,015	705	3,037,027
1921...	2,647	1,499,871	1,978	900,330	1,713	829,410	484	2,010,774
1922...	3,554	2,062,677	2,700	1,286,468	2,455	1,092,870	445	2,457,585
1923...	3,462	2,288,226	2,650	1,509,305	2 682	1,470,330	548	2,962,798
1924...	3,907	2,711,691	3,327	1,992,290	2,620	1,483,270	566	2,969,570

(*b*) ANALYSIS OF ADVANCES, 1913 TO 1924.

Year.	Over £1,500.	£1,001–£1,500.	£501–£1,000.	£251–£500.	£101–£250.	£100 and under.
	£	£	£	£	£	£
1913.....	374,205	332,820	447,310	233,685	114,275	27,765
1914.....	19,850	28,425	80,445	143,775	63,285	18,584
1915.....	7,420	18,190	40 150	35,260	11,980	4,365
1916.....	38,170	70,465	149,400	125,665	69,828	20,850
1917.....	186,455	183,260	291,730	175,485	81,380	19,610
1918.....	235,005	193,755	278,765	151,390	70,955	18,475
1919.....	332,210	244,595	328,180	184,680	76,085	6,780
1920.....	437,860	310,750	397,185	201,335	62,025	11,860
1921.....	157,540	149,140	229,085	186,120	89,535	17,990
1922.....	172,975	182,405	325,370	250,240	127,995	33,885
1923.....	326,380	330 110	434,745	240,645	104,640	33,810
1924.....	305,410	379,945	444,730	217,725	103,190	32,270

(*c*) PURPOSES FOR WHICH ADVANCES WERE MADE, 1913 TO 1924.

Year.	Improvements.	Purchase of Stock.	Discharge of Existing Liabilities.	Sub-Division of Land.	Establishment of Agricultural and Rural Industries.	Purchase of Land.
	£	£	£	£	£	£
1913.....	216,270	125,335	662,118	215	150	525,972
1914.....	46,831	41,564	107,057	952	—	157,960
1915.....	5,110	7,250	20,282	60	—	84,663
1916.....	53,920	47,044	128,229	265	600	244,320
1917.....	88,713	75,842	259,812	690	—	512,863
1918.....	51,574	62,832	420,805	390	—	412,744
1919.....	68,260	76,512	256,869	—	—	770,889
1920.....	89,581	87,481	334,195	—	—	909,758
1921.....	112,892	90,635	256,171	—	—	369,712
1922.....	196,276	100,216	443,365	—	—	353,013
1923.....	77,715	184,571	645,956	—	—	562,088
1924.....	91,850	149,100	592,407	—	—	649,913

(*d*) ADVANCES TO CO-OPERATIVE SOCIETIES, 1914 TO 1924.

Year.	Members at 31st December.	Amount Owing to Bank at 31st December (including interest).	Applications for New Loans.	
			Amount Applied for.	Amount Granted.
	No.	£	£	£
1914.....	12,065	418,082	422,000	284,000
1915.....	11,940	343,930	123,000	110,500
1916.....	11,716	354,730	71,500	63,600
1917.....	9,547	443,722	111,100	104,600
1918.....	11,085	499,857	234,200	233,300
1919.....	9,882	386,227	146,050	146,050
1920.....	11,757	1,015,949	686,075	500,355
1921.....	12,136	1,027,100	416,200	347,900
1922.....	11,805	750,566	609,470	601,970
1923.....	12,446	785,047	941,220	714,502
1924—				
Cape.....	183	16,727	7,630	7,630
Natal.....	122	8,542	8,200	8,200
Transvaal.....	9,638	380,008	470,131	352,431
Orange Free State.....	3,127	126,103	262,535	199,935
UNION, 1924.....	13,070	531,380	748,496	568,196

§ 4. Building Societies.

Statistics of building societies in the Union are collected annually under the *Statistics Act*, the first collection having taken place in respect of the year 1919–20. The tables hereunder give particulars of such societies from that year. For the purpose of the regulations under the Act the term "building society" includes all associations or organizations having for their object the purchasing, acquisition or building of houses for members of such associations or other persons. Terminable building societies are included.

The first building society in the Union was established in the Eastern Cape Province in 1864, and there were 53 societies in South Africa in 1920–21, 54 in 1921–22 and 1922–23, and 56 in 1923–24.

BUILDING SOCIETIES OPERATING IN THE UNION, 1919–20 TO 1923–24.

(*a*) SHARES.

Year.	New Shareholders during Year.	Shareholders at end of Year.	Shares Taken up during Year.	Shares Matured, Withdrawn, or Cancelled during Year.		Shares at end of Year.		Subscriptions on Shares during Year.
				Number.	Value.	Number.	Value.	
	No.	No.	No.		£		£	£
1919–20	5,950	23,771	35,210	15,956	524,101	114,504	2,603,682	575,808
1920–21	6,410	26,350	36,863	18,330	809,446	129,246	2,922,649	911,866
1921–22	4,766	26,036	31,379	24,979	993,978	136,443	3,274,842	838,925
1922–23	4,676	28,965	30,450	21 217	945,641	139,035	3,835,286	693,329
1923–24	6,624	29,728	40,756	23,959	1,035,236	157,801	4,348,367	871,807

(*b*) LOANS.

Year.	Loans Granted during Year.		Amount Received in Loan Redemption during Year.	Loans at end of Year.	
	Number.	Amount.		Number.	Amount.
		£	£		£
1919–20	4,056	2,584,388	1,810,932	10,230	4,562,814
1920–21	3,473	1,839,529	1,588,452	10,893	4,839,684*
1921–22	4,106	1,815,394	1,511,610	11,935	5,166,632*
1922–23	5,485	2,582,134	1,798,166	13,563	5,952,773*
1923–24	5,208	2,702,587	1,916,186	15,455	6,750,686

* Excluding unpaid interest.

(*c*) SAVINGS BANK ACCOUNTS.

Year.	Number of Accounts.			Deposits during Year.	Withdrawals during Year.	Deposits at end of Year.			Interest added during Year.
	Opened.	Closed.	At end of Year.			Current Account.	Fixed Deposits.	Total.	
				£	£	£	£	£	£
1919–20	6,484	4,310	22,621	2,882,835	2,612,585	1,569,733	584,925	2,154,658	82,010
1920–21	6,042	4,622	23,703	2,807,860	2,809,659	1,565,226	576,468	2,141,694	102,384
1921–22	5,679	5,135	24,338	2,758,580	2,802,897	1,479,170	619,712	2,098,882	91,301
1922–23	7,202	4,942	26,398	3,037,029	2,850,403	1,565,976	812,947	2,378,923	93,415
1923–24	6,749	3,758	27,390	3,094,551	2,736,667	1,923,838	868,560	2,792,398	111,995

(*d*) DIVIDENDS, REVENUE, EXPENDITURE, AND NET PROFIT.

Year.	Dividends Paid and Accrued on Shares during year.		Revenue.			Expenditure.	
	Contributing Shares.	Paid-up Shares.	Interest.	Other.	Total.	Working Expenses.	Net Profit.
	£	£	£	£	£	£	£
1919–20.....	111,636	43,109	320,403	55,608	376,011	142,142	233,869
1920–21.....	104,863	57,437	359,196	59,781	418,977	203,742	215,235
1921–22.....	141,305	54,935	390,621	68,564	459,185	196,948	262,237
1922–23.....	155,713	66,750	439,623	63,379	503,002	227,924	275,078
1923–24.....	155,527	79,400	490,848	70,856	561,704	242,134	319,570

(*e*) LIABILITIES.

Year.	Paid-up Capital (including accrued dividends).	Deposits.	Reserve Fund.	Other Funds and Undivided Profits.	Other Liabilities.	Total.
	£	£	£	£	£	£
1919–20.....	2,603,682	2,154,658	153,703	131,251	244,152	5,287,446
1920–21.....	2,922,649	2,141,694	194,938	140,563	179,664	5,579,508
1921–22.....	3,274,842	2,098,884	239,930	121,676	254,245	5,989,577
1922–23.....	3,836,387	2,378,923	282,668	218,203	269,623	6,985,804
1923–24.....	4,348,769	2,792,402	328,707	214,376	287,033	7,971,287

(*f*) ASSETS.

Year.	Loans.	Fixed Property.	Cash on Current Account.	Cash on Fixed Deposit.	Other Assets.	Total.
	£	£	£	£	£	£
1919–20.....	4,562,814	88,032	71,884	371,607	193,109	5,287,446
1920–21.....	4,870,977	97,412	108,865	362,352	139,902	5,579,508
1921–22.....	5,190,502	116,401	116,480	428,124	138,070	5,989,577
1922–23.....	6,016,967	131,309	168,760	516,323	152,445	6,985,804
1923–24.....	6,872,319	160,457	154,917	515,029	268,565	7,971,287

§ 5. Assurance.

1. **Union Insurance Act.**—The question of the consolidation of the laws of the several Provinces relating to insurance had been under consideration practically from the year of the establishment of the Union, and a consolidating Bill was printed in 1917, but it was not until the year 1923 that an *Insurance Act* for the Union (No. 37 of 1923) was passed by the legislature. This Act places insurance matters in the Union on a common basis, and repealed the relative old colonial laws wholly or in part. Its provisions had been previously discussed with insurance companies and others concerned.

The Act applies to all persons or bodies of persons (other than local authorities, friendly societies, burial societies, and trade unions) carrying on insurance business in the Union. Provision is made for the registration of insurance companies and for the lodging of security, which may in certain circumstances be increased or decreased, with the Treasury. Every company registered must have a chief office and a principal officer in the Union, and is required to render to the Treasury annually a duly certified revenue account, profit and loss account, and balance-sheet. The classes of insurance subject to the provisions of the Act are accident, bond, investment, burglary, employers' liability, fire, industrial, life, live stock, marine, motor, and plate glass insurance. An actuarial investigation into the financial position of life insurance companies at intervals is provided for. Minors of eighteen years

of age and over may insure their lives. Persons insured may, without consent of the insurance companies involved, engage in military or naval service in defence of the Union. Certain protection against life insurance policies being taken in execution by creditors of the insured is given. The contingency of life insurance companies amalgamating or life insurance business being transferred from one company to another is provided for. Companies having their head offices in the Union may be wound up under certain conditions in the event of their being proved insolvent. Certain requirements must be complied with by persons initiating insurance business in the Union or dealing with insurance in various other ways. There are penalties for infringements of the Act.

The accounts, abstracts, and statements deposited with the Treasury, or a summary thereof in such form as the Treasury may determine, must be presented to Parliament and published. In the absence of a Consolidating Insurance Act, annual statistics of insurance, covering the Union as a whole, were from the year 1917 collected and published under the *Statistics Act* (see paragraph 2). Moreover, certain particulars relating to Cape Life Assurance Companies and returnable under the *Life Assurance Act* of 1891 of the Cape of Good Hope were regularly compiled and published (see paragraph 3). The Union *Insurance Act* repealed the Cape Act referred to, and statistics of insurance more complete and in greater detail than it was practicable to render available under the *Statistics Act*, will in future be compiled from the returns to be submitted by companies under the *Insurance Act*. Statistics for the calendar year 1923 were, however, collected under the *Statistics Act* so as to preserve the continuity.

2. **Statistics of Insurance in the Union.**—In the following tables are given particulars obtained under the *Statistics Act* of 1914 regarding Insurance Companies in the Union for a period of years. The figures relate to every class of insurance transaction :—

(i) PARTICULARS OF INSURANCE COMPANIES OPERATING IN UNION, 1917 TO 1923.

(*a*) NUMBER OF INSURANCE COMPANIES, DATE OF ESTABLISHMENT, ETC.

Date of Establishment.	Headquarters in					Total.
	Union.	United Kingdom.	Other British Possessions.	United States of America.	Other Foreign Countries.	
Before 1800	—	5	—	—	—	5
1801–1825	—	12	—	—	—	12
1826–1850	1	7	1	—	2	11
1851–1860	2	1	2	—	—	5
1861–1870	—	6	2	—	—	8
1871–1880	—	5	2	—	—	7
1881–1890	—	2	1	—	2	5
1891–1900	4	2	—	—	—	6
1901–1905	3	2	—	—	—	5
1906–1910	—	4	—	—	—	4
1911–1915	1	2	1	—	—	4
1916–1923	4	1	1	—	—	6
TOTAL	15	49	10	—	4	78
Total at 31st December—						
1917	15	41	8	3	3	70
1918	15	44	8	3	4	74
1919	15	44	8	3	4	74
1920	18	45	9	3	5	80
1921	14	47	9	3	6	79
1922	15	47	8	1	4	75
1923	15	49	10	—	4	78
*Branches in Union—						
1917	72	67	16	1	1	157
1918	45	71	16	1	1	134
1919	44	79	17	1	1	142
1920	50	75	22	1	3	151
1921	45	66	17	1	2	131
1922	51	70	15	—	1	137
1923	52	74	16	—	2	144

* Excluding head offices and agencies.

(b) COMPARATIVE SUMMARY OF TRANSACTIONS OF INSURANCE COMPANIES IN UNION, 1921 TO 1923.

Description.	Total Transactions.		
	1921.	1922.	1923.
Assets in Union.....£	23,586,051	25,365,206	28,738,218
New Life Policies issued during year.....No.	33,326	27,346	31,261
Value of New Life Policies issued during year.£	15,425,875	12,939,184	13,877,859
Life Policies in Force at end of year.....No.	220,068	227,542	252,530
Value of Life Policies in Force at end of year.£	94,372,460	97,794,082	100,594,772
Value of Industrial Life Policies issued during year.....£	2,701,851	2,527,619	2,115,211
Premium Income—			
Life Insurance.....£	3,108,352	3,314,936	3,477,430
Industrial Life.....£	289,349	285,126	278,653
Fire Insurance.....£	1,158,547	1,114,157	1,090,415
Marine Insurance.....£	115,339	114,019	120,059
Workmen's Compensation.....£	331,857	250,857	291,492
Motor-cars.....£	185,860	171,121	225,195
Live Stock.....£	1,512	1,612	813
Other Insurance.....£	316,619	247,420	212,760
Losses—			
Fire Insurance.....£	967,709	651,252	426,118
Marine Insurance.....£	51,329	42,717	42,380
Workmen's Compensation.....£	181,371	150,824	176,512
Motor-cars.....£	133,799	107,529	105,489
Live Stock.....£	528	633	414
Other Insurance.....£	108,692	135,889	108,763

(c) SUMMARY OF TRANSACTIONS OF INSURANCE COMPANIES IN UNION, 1923.

Description.	Headquarters in					Total.
	Union.	United Kingdom.	Other British Possessions.	United States of America.	Other Foreign Countries.	
Assets in Union.....£	20,354,004	4,005,610	4,308,884	—	69,720	28,738,218
New Life Policies issued during year.....No.	22,353	3,396	5,512	—	—	31,261
Value of Life Policies issued during year.....£	9,827,333	1,705,282	2,345,244	—	—	13,877,859
Life Policies in force at end of year.....No.	168,964	37,236	46,330	—	—	252,530
Value of Life Policies in force at end of year.....£	65,538,627	16,775,166	18,280,979	—	—	100,594,772
Premium Income :—						
Life Insurance.....£	2,150,345	633,073	694,012	—	—	3,477,430
Industrial Life.....£	278,653	—	—	—	—	278,653
Fire Insurance.....£	95,408	893,524	72,467	—	29,016	1,090,415
Marine.....£	6,112	96,066	16,408	—	1,473	120,059
Workmen's Compensation.....£	151,511	130,933	9,048	—	—	291,492
Motor-cars.....£	36,199	185,623	3,073	—	—	225,195
Live Stock.....£	—	813	—	—	—	813
Other Insurance.....£	38,625	167,848	6,287	—	—	212,760
Losses :—						
Fire Insurance.....£	47,059	344,317	21,540	—	13,202	426,118
Marine Insurance.....£	3,158	31,737	7,145	—	340	42,380
Workmen's Compensation£	115,020	58,557	2,935	—	—	176,512
Motor-cars.....£	16,326	88,666	497	—	—	105,489
Live Stock.....£	—	414	—	—	—	414
Other Insurance.....£	13,583	92,374	2,806	—	—	108,763

(ii) LIFE INSURANCE TRANSACTIONS, 1917 TO 1923.

(a) PREMIUM INCOME OBTAINED DURING YEAR.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
Total, 1917	1,072,507	272,341	797,935	213,363	2,356,146
Total, 1918	1,102,777	287,008	835,117	225,710	2,450,612
Total, 1919	1,261,859	337,779	972,012	279,791	2,851,441
Total, 1920	1,427,825	374,255	1,103,006	365,297	3,270,383
Total, 1921	1,494,355	420,597	1,086,583	396,166	3,397,701
Total, 1922	1,582,889	438,458	1,211,385	367,330	3,600,062
1923—					
Assurances	1,291,310	335,814	1,034,197	307,184	2,968,505
Pure Endowments	167,506	74,771	189,843	57,817	489,937
Industrial Life	166,511	30,943	72,509	8,690	278,653
Annuities	11,575	1,817	3,825	1,771	18,988
TOTAL £	1,636,902	443,345	1,300,374	375,462	3,756,083

(b) NEW LIFE POLICIES ISSUED AND LIFE POLICIES IN FORCE IN UNION, 1917 TO 1923.

Description.	Life Policies Issued during Year.		Life Policies in Force 31st December.	
	Number.	Amount.	Number.	Amount.
1917—		£		£
Assurances*	65,328	8,325,777	254,456	64,370,764
Pure Endowments	82,045	2,679,590	94,689	5,694,207
TOTAL	147,373	11,005,367	349,145	70,064,971
Annuities	39	2,120	276	15,831
1918—				
Assurances*	121,049	11,174,006	348,126	72,152,515
Pure Endowments	8,419	300,928	30,010	1,471,878
TOTAL	129,468	11,474,934	378,136	73,624,393
Annuities	37	2,493	289	16,493
1919—				
Assurances	23,774	11,245,613	159,889	70,823,554
Pure Endowments	7,842	2,501,112	23,045	6,921,677
Industrial Life	117,539	2,692,704	229,495	4,825,473
TOTAL	149,155	16,439,429	412,429	82,570,704
Annuities	36	3,022	380	23,903

* Including Industrial Life Assurance.

(*b*) NEW LIFE POLICIES ISSUED AND LIFE POLICIES IN FORCE IN UNION, 1917 TO 1923—*continued.*

Description.	Life Policies Issued during Year.		Life Policies in Force 31st December.	
	Number.	Amount.	Number.	Amount.
1920—		£		£
Assurances	26,912	13,312,192	177,549	79,567,077
Pure Endowments	9,445	3,585,940	31,511	10,370,449
Industrial Life	120,045	2,904,373	250,299	5,395,646
TOTAL	156,402	19,802,505	459,359	95,333,172
Annuities	44	2,702	406	25,335
1921—				
Assurances	24,873	12,170,891	188,241	83,963,457
Pure Endowments	8,419	3,239,421	31,368	10,370,963
Industrial Life	103,922	2,701,851	241,290	5,417,523
TOTAL	137,214	18,112,163	460,899	99,751,943
Annuities	34	15,563	459	38,040
1922—				
Assurances	21,484	10,496,100	197,129	87,912,353
Pure Endowments	5,654	2,274,586	29,849	9,007,674
Industrial Life	99,163	2,527,619	243,013	5,717,345
TOTAL	126,301	15,298,305	469,991	102,637,372
Annuities	208	168,498	1,564	874,055
1923—				
Assurances	27,059	12,110,869	203,859	90,398,961
Pure Endowments	4,049	1,656,008	47,171	9,384,839
Industrial Life	85,219	2,115,211	228,003	5,014,990
TOTAL	116,327	15,882,088	479,033	104,798,790
Annuities	153	110,982	1,500	810,972

(iii) PREMIUM INCOME—ALL INSURANCE, OTHER THAN LIFE, 1917 TO 1923.

Year.	Class of Insurance.						Total.
	Fire.	Marine.	Workmen's Compensation	Motor Car.	Live Stock.	Other.	
	£	£	£	£	£	£	£
1917	776,559	232,783	289,364	79,833	3,759	128,135	1,510,433
1918	868,226	324,667	287,163	81,292	3,140	139,782	1,704,270
1919	956,129	138,446	321,070	103,897	2,369	166,557	1,688,468
1920	1,203,616	147,174	392,888	166,863	5,754	214,539	2,130,834
1921	1,158,547	115,339	331,857	185,860	1,512	201,280	1,994 395
1922	1,114,157	114,019	250,857	171,121	1,612	247,420	1,899,186
1923—							
Cape of Good Hope	429,319	56,634	65,026	81,092	633	55,315	688,019
Natal	191,441	34,520	30,786	40,129	98	19,037	316,011
Transvaal	407,545	28,072	192,581	99,724	—	131,919	859,841
Orange Free State	62,110	833	3,099	4,250	82	6,489	76,863
TOTAL £	1,090,415	120,059	291,492	225,195	813	212,760	1,940,734

(iv) LOSSES SUSTAINED—ALL INSURANCE, OTHER THAN LIFE, 1917 TO 1923.

Year.	Class of Insurance.						Total.
	Fire.	Marine.	Workmen's Compensation.	Motor Car.	Live Stock.	Other.	
	£	£	£	£	£	£	£
1917	224,151	32,385	160,374	42,652	1,262	35,179	496,003
1918	239,777	23,164	164,119	44,405	1,290	52,868	525,623
1919	326,541	47,885	156,257	59,543	1,147	56,701	648,074
1920	1,157,658	54,688	180,422	97,635	3,283	77,941	1,571,027
1921	967,709	51,329	181,371	133,799	528	108,692	1,443,428
1922	651,252	42,717	150,824	107,529	633	135,889	1,088,844
1923—							
Cape of Good Hope	115,407	20,144	23,442	42,841	267	30,136	232,237
Natal	65,093	12,089	11,972	14,723	—	4,903	108,780
Transvaal	208,170	9,964	139,951	44,085	46	71,265	473,481
Orange Free State.	37,448	183	1,147	3,840	101	2,459	45,178
TOTAL.....£	426,118	42,380	176,512	105,489	414	108,763	859,676

3. **Life Assurance** (Cape).—The tables given below relate only to life assurance in the Cape of Good Hope, and are derived from returns rendered by life assurance companies in the Cape Province in terms of the Cape Colony *Life Assurance Act*, 1891 (now repealed by the *Union Insurance Act* No. 37 of 1923).

(i) GROWTH OF LIFE ASSURANCE, CAPE OF GOOD HOPE, 1897 TO 1923.

Year.	Policies in Force.	Sums Assured.	Year.	Policies in Force.	Sums Assured.
	No.	£		No.	£
1897.	31,873	12,233,313	1917.	181,512	33,852,012
1902.	57,940	16,375,640	1918.	232,387	36,091,378
1907.	83,093	21,587,957	1919.	262,606	40,856,293
1912.	114,820	26,330,401	1920.	270,523	44,838,208
1913.	136,101	28,661,711	1921.	280,163	46,576,622
1914.	147,425	30,431,277	1922.	285,212	47,968,156
1915.	156,148	30,727,747	1923.	281,183	48,761,611
1916.	164,942	31,723,680			

(ii) NUMBER OF LIFE ASSURANCE POLICIES IN FORCE, CAPE OF GOOD HOPE, 1918 TO 1923.

Company.	1918.	1919.	1920.	1921.	1922.	1923.
Foreign Companies—						
Alliance (see Imperial)†..	—	—	—	—	—	—
Algemene Maatschappij	96	92	92	—	—	—
Caledonian	77	74	72	67	63	58
Colonial Mutual	6,174	6,133	6,116	6,086	6,703	7,260
Commercial Union	518	543	547	551	525	516
Economic	604	582	545	521	490	467
English and Scottish‡	286	—	—	—	—	—
Equitable of United States††	1,320	1,245	1,178	1,090	—	—
General Life	1,117	1,174	1,124	984	836	794
General Accident, Fire, and Life	152	159	154	148	139	135
Gresham	453	436	454	474	448	452
Imperial	139	129	125	122	118	114
Law Union and Rock	1,439	1,477	1,679	1,696	1,530	1,525
London Assurance	6	4	3	2	2	2
London Guarantee and Accident Company	—	—	10	84	88	90
London and Lancashire§	279	342	485	867	825	1,087
Manufacturers (Canada)‡‡	838	843	930	965	981	981
Mutual of New York	1,359	1,300	1,229	1,119	190	172
National Mutual, Australasia (30.9.22)	5,854	6,536	7,135	7,368	7,446	7,637
New York Life††	1,227	1,197	1,149	1,104	—	—
Norwich Union	3,706	3,736	3,833	4,585	4,730	4,778
North British	17	16	15	13	14	17
Northern	204	214	245	243	229	229
Royal	217	210	195	175	167	161
Royal Exchange	65	73	74	84	86	83
Standard (15.11.22)	575	551	529	496	482	481
Star‖	2,534	2,804	2,691	2,556	2,503	2,341
Sun Life of Canada‡‡	65	79	**79	181	2,355	2,355
Union¶	609	546	518	479	442	413
Yorkshire	182	208	218	202	200	237
TOTAL—Foreign Companies (30)	30,112	30,703	31,424	32,262	31,592	32,385
South African Companies—						
African Homes Trust	73,087	83,332	83,436	89,294	89,059	83,516
African Life	50,528*	59,909	60,651	61,585	63,573	62,314
Southern	11,082	12,570	13,824	14,131	14,128	14,141
S.A. Mutual	35,003	38,640	42,494	44,316	46,742	47,245
Federal	232	231	225	212	198	183
United Provident and Assurance Association (31.5.23)	32,343	34,666	35,172	34,896	35,879	36,617
African Motherhood Endowment	—	1,153	473	—	—	—
S.A. Liberal Life	—	—	—	—	678	1,077
S.A. National Life (30.9.22)	—	1,402	2,824	3,467	3,363	3,705
TOTAL—South African Companies (9)	202,275	231,903	239,099	247,901	253,620	248,798
GRAND TOTAL	232,387	262,606	270,523	280,163	285,212	281,183

* Includes Industrial Policies—43,380 for £781,615. Numbers for previous years omitted.
† Now amalgamated with Imperial.
‡ Amalgamated with Eagle, Star, and British Dominions Assurance Company.
§ Now London and Scottish.
‖ Now Eagle, Star, and British Dominions Assurance Company.
¶ Amalgamated with Commercial Union.
** 1919 figures; 1920 not available.
†† Amalgamated with Sun Life of Canada.
‡‡ Figures for 1923 not available. To produce comparative totals the figures for 1922 have been repeated.

(iii) LIFE ASSURANCE—CAPE OF GOOD HOPE.—SUMS ASSURED ON LIVES RESIDENT IN PROVINCE, 1918 TO 1923.

Company.	Sums Assured.					
	1918.	1919.	1920.	1921.	1922.	1923.
Foreign Companies—	£	£	£	£	£	£
Alliance†	—	—	—	—	—	—
Algemene Maatschappij	22,747	22,497	22,497	—	—	—
Caledonian	33,091	31,591	30,851	29,521	27,421	25,921
Colonial Mutual	1,925,086	1,889,268	1,871,263	1,857,210	2,082,012	2,256,536
Commercial Union	291,858	312,382	317,409	324,718	315,263	298,110
Economic	318,909	325,567	303,265	291,755	268,810	262,328
English and Scottish‡	87,580	—	—	—	—	—
Equitable of United States **	660,408	619,743	587,698	542,912	—	—
General Life	287,603	310,091	302,079	271,178	224,244	245,086
General Accident, Fire, and Life	41,871	43,836	44,303	41,910	39,853	37,815
Gresham	153,856	150,127	164,130	170,823	164,284	169,397
Imperial	66,820	63,342	59,094	54,664	49,991	45,325
Law Union and Rock	632,741	648,735	703,744	708,839	658,764	657,144
London Assurance	3,500	2,000	1,500	1,000	1,000	1,000
London Guarantee and Accident Company	—	—	4,237	40,444	47,180	29,496
London and Lancashire§	129,757	166,207	210,107	347,157	493,594	562,488
Manufacturers (Canada)††	255,002	265,307	330,584	345,102	363,651	363,651
Mutual of New York	567,460	541,651	509,826	470,538	83,645	78,030
National Mutual of Australasia (30.9.22)	2,109,056	2,401,921	2,736,248	2,857,737	2,921,521	3,084,344
New York Life**	547,863	538,033	516,697	494,709	—	—
Norwich Union	1,973,275	2,115,725	2,242,700	2,577,281	2,605,136	2,665,162
North British	7,140	6,890	6,690	6,000	6,100	6,700
Northern	77,611	88,412	92,360	93,681	82,053	82,053
Royal	143,334	140,536	130,854	116,248	109,393	104,052
Royal Exchange	24,709	29,309	32,012	43,662	47,312	46,046
Standard (15.11.22)	243,340	229,690	225,090	206,724	201,841	200,691
Star‖	956,009	1,028,568	990,627	932,931	948,622	878,654
Sun Life Assurance Co. of Canada††	28,425	38,525	*38,525	98,602	1,116,609	1,116,609
Union¶	246,511	220,314	212,464	200,012	187,548	174,748
Yorkshire	90,368	101,618	108,318	100,431	100,941	133,808
TOTAL—Foreign Companies (30)£	11,925,930	12,331,885	12,794,572	13,225,789	13,146,788	13,525,194
South African Companies—						
African Homes Trust	1,384,497	1,678,233	1,856,174	2,035,897	1,999,273	1,969,695
African Life	3,027,075	3,768,953	4,371,045	4,582,872	4,649,401	5,022,702
Southern	3,714,182	4,331,766	4,850,290	5,042,899	5,127,981	5,113,153
S.A. Mutual (30.6.23)	15,565,786	17,345,013	19,183,324	19,977,215	21,030,906	21,036,331
Federal	56,322	57,622	55,772	53,122	50,422	46,273
United Provident and Assurance Association (31.5.23)	417,586	477,452	544,827	518,158	553,897	500,963
African Motherhood Endowment	—	357,430	143,654	—	—	—
S.A. Liberal Life	—	—	—	—	237,900	385,250
S.A. National Life (30.9.22)	—	507,939	1,038,550	1,140,670	1,171 588	1,162,050
TOTAL—South African Companies (9)£	24,165,448	28,524,408	32,043,636	33,350,833	34,821,368	35,236.417
GRAND TOTAL£	36,091,378	40,856,293	44,838,208	46,576,622	47,968,156	48,761,611

* 1919 figures; 1920 not avlaiable.
† Amalgamated with Imperial.
‡ Amalgamated with Eagle, Star, and British Dominions Assurance Company.
§ Now London and Scottish.
‖ Now Eagle, Star, and British Dominions Assurance Company.
¶ Amalgamated with Commercial Union.
** Amalgamated with Sun Life of Canada.
†† Figures for 1923 not available. To produce comparative totals the figures for 1922 have been repeated.

(iv) LIFE ASSURANCE—CAPE OF GOOD HOPE.—ASSETS OF COMPANIES, 1918 TO 1923.

COMPANY.	1918.	1919.	1920.	1921.	1922.	1923.
Foreign Companies—	£	£	£	£	£	£
Alliance‡	—	—	—	—	—	—
Algemene Maatschappij	13,078	18,143	18,143	—	—	—
Caledonian††	10,147	9,946	9,613	9,877	10,366	10,366
Colonial Mutual	704,474	736,687	797,900	821,293	839,868	852,230
Commercial Union	128,966	95,312	186,477	70,800	76,505	75,548
Economic	25,743	23,407	18,975	8,405	8,383	8,027
English and Scottish**	22,946	—	—	—	—	—
Equitable of United States†	97,713	97,778	99,816	101,892	—	—
General Life	30,970	27,897	28,329	26,877	25,999	26,825
General Accident, Fire, and Life	35,447	20,187	42,274	45,709	49,355	60,566
Gresham	68,776	61,465	68,593	83,173	87,275	89,674
Imperial	17,984	17,463	18,259	15,090	8,540	8,505
Law Union and Rock§	39,632	35,064	25,311	36,657	20,060	20,982
London Assurance	10,152	10,239	11,551	9,272	8,173	8,856
London Guarantee and Accident Company	—	—	12,835	12,980	14,285	12,152
London and Lancashire‖	42,163	44,777	43,305	53,823	55,113	83,738
Manufacturers (Canada)††	15,979	16,247	18,294	18,294	76,444	76,444
Mutual of New York	62,858	58,029	55,668	57,411	4,968	6,438
National Mutual of Australasia (30.9.22)	209,444	244,612	265,361	336,679	381,005	351,771
New York Life†	37,064	36,985	45,662	50,539	—	—
Norwich Union	270,419	270,419	270,419	285,425	285,425	285,425
North British	10,645	10,679	10,789	10,570	10,000	11,235
Northern	60,776	63,076	100,126	112,710	88,413	88,413
Royal	60,962	21,660	20,355	19,386	23,439	25,889
Royal Exchange	11,732	12,641	36,859	42,063	51,019	76,500
Standard††	28,043	21,934	19,411	19,411	19,411	19,411
Star*	120,991	130,394	116,471	113,089	112,256	104,034
Sun Life Assurance Co. of Canada††	10,000	13,000	13,000	13,000	150,000	150,000
Union¶	46,405	42,867	39,642	39,642	43,099	40,988
Yorkshire	32,030	28,802	36,777	29,623	35,188	36,579
TOTAL—Foreign Companies (30)....£	2,225,539	2,169,710	2,430,215	2,443,690	2,484,589	2,530,596
South African Companies—						
African Homes Trust	172,610	189,927	196,161	247,129	278,153	298,270
African Life	121,743	135,159	231,242	259,100	560,549	569,542
Southern	1,342,036	1,438,243	1,627,499	1,755,414	1,990,663	1,994,527
South African Mutual (30.6.23)	6,134,575	6,753,327	7,133,193	7,549,254	7,770,280	8,485,844
Federal	27,503	26,557	21,922	29,467	30,878	31,240
United Provident and Assurance Association	73,876	73,876	73,876	73,876	73,876	73,876
African Motherhood Endowrance Association (31.5.22)	—	27,945	27,945	—	—	—
S.A. Liberal Life	—	—	—	—	17,462	24,799
S.A. National Life (30.9.22)	—	53,077	53,077	27,296	53,996	53,996
TOTAL—South African Companies (9).....£	7,872,343	8,698,111	9,364,915	9,941,536	10,775,857	11,532,094
GRAND TOTAL.....£	10,097,882	10,867,821	11,795,130	12,385,226	13,260,446	14,062,690

* Now Eagle, Star, and British Dominions.
† Amalgamated with Sun Life of Canada.
‡ Amalgamated with Imperial.
§ Formerly Law and Crown.
‖ Now London and Scottish.
¶ Amalgamated with Commercial Union.
** Amalgamated with Eagle, Star, and British Dominions.
†† Figures for 1923 not available. To produce comparative totals the figures for 1922 have been repeated.

§ 6. Registration of Companies and Businesses.

1. **Registration of Companies.**—Particulars are given hereunder for the Union, and for each Province, of the number of companies registered during a period of years, and the nominal capital. Different laws relating to the registration, etc., of companies are in operation in the various Provinces. A measure, Act No. 46 of 1926, consolidating and amending the various company laws in force in the four Provinces, was passed during the 1926 session of Parliament, and comes into operation on the 1st January, 1927.

REGISTRATION OF COMPANIES, 1919 TO 1924.

(*a*) UNION.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Companies Registered at 31st December—						
Total number	8,899	9,655	10,139	10,661	11,168	11,726
Nominal Capital.....£	*	*	136,837,115	137,871,359	143,005,521	146,843,773
New Companies Registered during Year—			‡	‡	‡	
Number	683	803	596	628	597	620
Nominal Capital.....£	21,876,081	42,763,585	38,170,316	8,857,232	13,677,289	14,417,051
Increases of Capital—						
Number	154	260	162	117	121	110
Amount.....£	4,188,540	13,618,119	5,355,937	3,910,376	4,301,075	4,803,686
Reductions of Capital—						
Number	9	7	6	12	21	14
Amount.....£	395,051	423,550	338,600	905,746	1,291,334	1,381,699
Liquidations †—						
Number	134	156	248	267	224	180
Total Capital.....£	2,971,201	4,739,996	11,806,165	6,927,559	5,692,735	14,640,219

* Records incomplete. No figures available for Transvaal and Orange Free State.
† Exclusive of liquidations in Natal, regarding which no particulars are available.
‡ Records incomplete. No figures available for Transvaal.

(*b*) CAPE OF GOOD HOPE.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Companies Registered at 31st December—						
Total number	1,221	1,360	1,396	1,464	1,538	1,632
Nominal Capital.....£	34,392,179	49,353,576	50,805,549	52,164,450	54,375,265	57,519,279
New Companies Registered during Year—						
Number	169	182	128	144	151	134
Nominal Capital.....£	3,358,460	12,151,615	6,522,925	2,803,751	3,662,540	4,582,221
Increases of Capital—						
Number	22	49	17	16	19	10
Amount.....£	899,500	3,886,357	334,000	449,700	528,988	640,400
Reductions of Capital—						
Number	—	1	2	1	7	5
Amount.....£	—	206,750	311,250	82,948	177,984	240,390
Liquidations—						
Number	38	43	92	76	77	40
Total Capital.....£	342,827	869,825	5,070,952	1,444,850	1,451,725	1,438,207

(*c*) NATAL.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Companies Registered at 31st December—						
Total number	1,036	1,127	1,193	1,257	1,323	1,415
Nominal Capital.....£	22,929,578	25,440,447	26,225,089	26,818,615	27,230,489	27,763,627
New Companies Registered during Year—						
Number	65	91	66	64	66	92
Nominal Capital.....£	1,151,601	2,510,869	784,642	593,526	411,874	533,138
Increases of Capital—						
Number	12	58	47	34	24	92
Amount.....£	209,823	1,897,646	2,078,658	829,260	979,080	1,774,269
Reductions of Capital—						
Number	—	—	—	—	—	—
Amount.....£	—	—	—	—	—	—
Liquidations—						
Number	*	*	*	*	*	*
Total Capital.....£	*	*	*	*	*	*

* No record.

REGISTRATION OF COMPANIES, 1919 TO 1924—*continued.*

(*d*) TRANSVAAL.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Companies Registered at 31st December—						
Total number	6,210	6,635	6,988	7,367	7,712	8,070
Nominal Capital.....£	*	*	*	*	*	*
New Companies Registered during Year—						
Number	401	425	353	379	345	358
Nominal Capital—						
Local Companies.....£	4,322,887	5,495,235	3,819,990	2,599,755	2,711,842	2,840,682
Foreign Companies.....£	10,250,933	11,556,000	11,963,734	2,171,750	4,379,500	5,287,010
TOTAL..... £	14,573,820	17,051,235	15,783,724	4,771,505	7,091,342	8,127,692
Increases of Capital—						
Number	107	127	77	60	66	60
Amount.....£	2,799,467	6,515,230	1,367,833	2,002,349	2,528,820	2,104,767
Reductions of Capital—						
Number	9	5	4	11	13	7
Amount.....£	395,051	215,300	27,350	822,798	1,087,100	1,018,159
Liquidations—						
Number	90	109	136	161	134	118
Amount.....£	2,529,374	3,843,671	5,842,213	3,274,009	3,967,510	12,028,012†

* No record.
† Approximately £8,500,459 of this amount represents the capital of companies placed in liquidation for reconstruction purposes.

(*e*) ORANGE FREE STATE.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Companies Registered at 31st December—						
Total number	432	533	562	573	595	609
Nominal capital.....£	*	*	59,806,477	58,888,294	61,399,767	61,560,867
New Companies Registered during Year—						
Number (Local)	48	105	42	36	31	30
Number (Foreign)	—	—	7	5	4	6
Nominal Capital (Local) £	2,792,200	11,050,016	15,046,025	615,200	2,238,033	904,000
Nominal Capital (Foreign)£	—	—	33,000	73,250	273,500	270,000
Increases of Capital—						
Number	13	26	21	7	12	8
Amount.....£	279,750	1,318,886	1,575,446	629,067	264,187	284,250
Reductions of Capital—						
Number	—	1	—	—	1	2
Amount.....£	—	1,500	—	—	26,250	128,150
Liquidations—						
Number	6	4	20	30	13	22
Total Capital.....£	99,000	26,500	893,000	2,235,700	273,500	1,174,000

* No record.

2. **Registration of Businesses.**—Particulars are given hereunder as to the registration of businesses in Natal and the Transvaal for a period of years. No provision exists in the Cape and Orange Free State Provinces for the registration of businesses or partnerships. The Transvaal Act (No. 36 of 1909) covers a wider field than the Act in force in Natal (No. 35 of 1906), hence the difference in the proportionate number of registrations in these two Provinces.

REGISTRATION OF BUSINESSES, 1919 TO 1924.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
Natal—						
Businesses Registered.....	430	564	502	584	593	565
Businesses Abandoned....	7	17	8	16	15	26
Changes of Firms.....	181	247	238	278	306	336
Transvaal—						
Businesses Registered.....	8,446	9,108	9,812	10,579	10,630	10,977
Businesses Abandoned....	2,855	5,642	5,348	4,385	5,191	6,040
Changes of Firms.....	2,191	2,307	2,451	2,132	2,308	2,688

§ 7. Bonds Registration.

Value of Bonds Registered.—The following table gives the value of bonds registered and cancelled in each Province for a period of years. Further particulars in this connexion are given under the various Deeds Registries in Chapter XI.

BONDS REGISTERED AND CANCELLED, 1919 TO 1924.

Heading.	1919.	1920.	1921.	1922.	1923.	1924.
*Cape of Good Hope :—	£	£	£	£	£	£
Bonds Registered—						
Immovable Property..	10,375,695	13,889,696	14,077,694	10,275,606	11,230,187	11,590,897
Bonds Cancelled.....	7,397,923	8,055.023	6,173,414	5,094,505	6,002,464	7,260,261
Natal :—						
Bonds Registered—						
Immovable Property..	2,531,423	3,987,901	4,115,025	3,902,022	4,885,843	4,034,818
Movable Property.....	1,013,631	1,524,221	2,366,628	1,011,457	1,572,105	646,307
TOTAL.....£	3,545,054	5,512,122	6,481,653	4,913,479	6,457,948	4,681,125
Bonds Cancelled—						
Immovable Property..	1,871,193	2,623,872	2,138,660	2,166,290	2,653,932	2,388,691
Movable Property.....	552,975	855,238	1,042,467	676,234	798,827	794,881
TOTAL.....£	2,424,168	3,479,110	3,181,127	2,842,524	3,452,759	3,183,572
Transvaal :—						
Bonds Registered—						
Immovable Property...	6,471,402	9,041,275	9,466,302	17,326,144	11,642,336	8,784,839
Movable Property.....	5,051,067	1,849,988	4,193,112	2,382,589	5,021,605	2,846,505
†TOTAL.....£	11,522,469	10,891,263	13,659,414	19,708,733	16,663,941	11,631,344
‡Bonds Cancelled.....£	3,026,530	4,763,825	5,476,330	3,369,833	4,828,016	6,840,216
Orange Free State :—						
Bonds Registered—						
Special.....	3,543,536	5,671,146	4,138,999	3,535,786	4,100,749	3,449,923
Notarial.....	809,373	237,341	525,799	591,447	1,982,932	284,531
TOTAL.....£	4,352,909	5,908,487	4,664,798	4,127,233	6,083,681	3,734,454
Bonds Cancelled.....£	2,914,314	3,587,458	1,653,360	2,601,840	3,336,439	2,872,243

* No record of bonds on movable property.
† Including collateral surety and debenture bonds.
‡ Including collateral bonds.

§ 8. Insolvencies and Administration of Estates.

1. **Return of Insolvencies.**—Particulars are given in the subjoined tables in regard to insolvencies in the Union. The law governing the procedure in the case of insolvencies and the administration of insolvent estates is contained in the Union Act No. 32 of 1916.

This Act has been amended by the *Insolvency Act*, 1916, *Amendment Act*, No. 29 of 1926, which comes into operation on the 1st October, 1926.

(i) INSOLVENCIES, 1910 TO 1924.

HEADING.	NUMBER OF INSOLVENCIES.				INSOLVENTS' STATEMENTS OF ASSETS.	INSOLVENTS' STATEMENTS OF LIABILITIES.
	Voluntary Surrenders.	Compulsory Sequestrations.	Assignments and Compositions.	Total.		
			(*a*) UNION, 1910 TO 1924.			
					£	£
1910	484	240	75	799	557,545	915,642
1911	380	350	80	810	396,122	775,234
1912	482	391	72	945	441,304	764,202
1913	518	497	91	1,106	507,565	906,666
1914	811	588	103	1,502	765,079	1,297,578
1915	716	326	79	1,121	1,172,638	1,921,286
1916	537	319	49	905	956,100	1,656,876
1917	234	241	52	527	436,032	654,647
1918	171	216	12	399	399,909	657,905
1919	178	249	16	443	493,424	832,164
1920	228	401	20	649	1,123,793	1,704,393
1921	992	1,022	132	2,146	4,711,080*	6,666,461*
1922	1,200	1,119	151	2,470	4 113,366†	5,967,664†
1923	1,089	1,032	142	2,263	3,389,349‡	5,257,616‡
1924	799	1,004	138	1,941	2,533,404§	4,092,820§
			(*b*) PROVINCES, 1924.			
Cape of Good Hope	310	253	54	617	950,794	1,461,747
Natal	48	85	10	143	194,135	282,537
Transvaal	250	584	67	901	1,079,405§	1,697,047§
Orange Free State	191	82	7	280	309,070	651,489
UNION	799	1,004	138	1,941	2,533,404	4,092,820

NOTE.—Statements of assets and liabilities exclude Transvaal for the years 1911 to 1917, and assignments and compositions in Cape Province for the years 1911 to 1916.

* Exclusive of assets and liabilities not declared in 65 cases, which are included in the total number of insolvencies.

† Exclusive of assets and liabilities not declared in six cases in the Cape of Good Hope, and 184 cases in the Transvaal, which are included in the total number of insolvencies.

‡ Exclusive of assets and liabilities not declared in 142 cases in the Transvaal, which are included in the total number of insolvencies.

§ Exclusive of assets and liabilities not declared in 130 cases in the Transvaal, which are included in the total number of insolvencies.

(ii) INSOLVENCIES, 1918 TO 1924.—RACE AND OCCUPATIONS OF INSOLVENTS.

Year.	European.	Asiatic.	Other Coloured.	Total.	Insolvencies per 10,000 of European and Asiatic Population.	Professional.	Commercial.	Manufacturers.	Agriculture.	Wage Earners.	Miscellaneous
1918	345	53	1	399	2	12	179	2	103	28	75
1919	365	75	3	443	3	11	218	9	73	53	79
1920	553	93	3	649	4	35	345	7	96	58	108
1921	1,892	236	18	2,146	13	24	1,070	30	758	221	43
1922	2,135	315	20	2,470	14	53	1,265	9	886	226	31
1923	2,033	212	18	2,263	13	63	1,105	9	677	352	57
1924	1,756	174	11	1,941	11	45	1,070	17	368	397	44

2. **Estates of Deceased Persons, etc.**—The administration of the estates of deceased persons is regulated by Act No. 24 of 1913, and vested in the Masters of the Supreme Court at Cape Town, Pietermaritzburg, Pretoria, and Bloemfontein, having jurisdiction within the several Provinces, and the Assistant Master at Kimberley, who is subordinate to the Master of the Cape of Good Hope and has jurisdiction in the Griqualand Local Division of the Supreme Court. Provision is made in the Act, *inter alia*, for the registration of wills, the preparation and submission of inventories by surviving spouses and others in the case of married persons dying, the issue of letters of administration to executors testamentary or dative, and of letters of confirmation to tutors and curators, and the due distribution and liquidation of deceased estates under the supervision of the Master concerned. A Guardian's Fund, consisting of all moneys vested by law in the Masters, is established for each Province; these funds are held in trust by the Public Debt Commissioners. (See paragraph 13, section D, chapter XXII.)

The following table gives particulars of work done in the Masters' Offices under the *Administration of Estates Act*:—

ADMINISTRATION OF ESTATES IN THE UNION, 1917 TO 1924.

Heading.	Death Notices.	Wills.	Inventories.	Security Bonds.	Liquidation Accounts.	Executors and Tutors Appointed.	Guardians' Fund.	Succession Duty Collected.
UNION, 1917 TO 1924.								
	No.	No.	No.	No.	No.	No.	£	£
1917.....	10,421	5,278	10,444	2,723	7,060	5,855	2,264,736	112,565
1918.....	15,220	9,220	14,961	3,613	7,165	7,850	2,206,785	108,421
1919.....	13,291	7,456	14,573	4,908	9,045	11,108	2,492,715	178,345
1920.....	9,477	5,666	10,545	3,302	10,595	7,270	2,975,682	251,218
1921.....	8,930	5,233	10,343	3,384	7,801	6,945	3,139,337	187,063
1922.....	8,021	5,174	9,035	3,562	7,965	6,248	3,183,611	177,800
1923.....	7,884	5,070	10,001	2,582	7,369	6,116	2,732,617	172,505
1924.....	8,601	5,297	10,992	2,818	7,659	6,281	2,731,571	102,310
MASTERS' OFFICES, 1924.								
	No.	No.	No.	No.	No.	No.	£	£
Cape.....	3,349	2,221	2,890	1,142	3,700	2,635	1,476,094	81,469
Kimberley....	294	205	265	104	255	256	—	4,496
Pietermaritzburg.....	942	654	1,413	552	764	803	277,140	4,367
Pretoria.....	3,200	1,617	5,200	1,020	2,147	1,909	978,337	—
Bloemfontein..	816	600	1,224	—	793	678	—	11,978
TOTAL....	8,601	5,297	10,992	2,818	7,659	6,281	2,731,571	102,310

CHAPTER XXIV.

POPULATION.

§ 1. Population of the Union.

1. **General.**—The census taken in 1904 in each of the four Colonies which subsequently (in 1910) were incorporated in the Union was the first simultaneous census taken in South Africa. Table (i) hereunder gives the dates of the various censuses which have been taken in the states of South Africa now comprised in the Union; but, while comparisons are possible in respect of the numbers of the population of separate Provinces for earlier periods than 1904, full comparison is only possible in respect of the whole area of the Union for the years 1904, 1911, and 1921—1911 being the year in which the first Union census was taken; and for the year 1918 as to the European population only. The summaries of the population returns for the 1904 and subsequent censuses are given hereunder in tables (ii), (iii), and (iv); while the mean estimated population for the years 1910 to 1926 is shown in table (v). The returns of the 1918 census given in the tables do not include persons absent from the Union on active service or for other purposes connected with the Great War. A special absentee census was taken in respect of males under the *Electoral Census Further Provision Act* of 1918, simultaneously with the main census of the European population in the Union, and 28,312 persons were enumerated; particulars of these will be found in *Official Year Book* No. 4. Attention is drawn to the fact that the figures shown in table (vii) and subsequent tables in respect of the Asiatic and mixed and other coloured races for 1911 differ somewhat from those published in previous issues of the *Year Book*. This is due to a corrected race classification being adopted for the census of 1921, necessitating a slight adjustment of the 1911 figures for the purposes of comparison.

The Report on the Census of 1921 gives a full analysis of the results of that Census and reviews also the results of previous Censuses in South Africa, illustrating the growth and developement of the various sections of the population.

(i) DATE OF EACH CENSUS TAKEN IN THE UNION AND IN THE COLONIES AND STATES NOW COMPRISED WITHIN THE UNION.

Year.	Cape.	Natal.	Transvaal.	Orange Free State.	Union.
1865	5 Mar.	—	—	—	—
1875	7 Mar.	—	—	—	—
1880	—	—	—	31 Mar.	—
1890	—	—	1 Apr.*	31 Mar.	—
1891	5 Apr.	5 Apr.	—	—	—
1904	17 Apr.	17 Apr.	17 Apr.	17 Apr.	—
1911	—	—	—	—	7 May.
1918*	—	—	—	—	5 May.*
1921	—	—	—	—	3 May.
1926*	—	—	—	—	4 May.*

* European Population only.

(ii) CENSUSES OF 1904, 1911, 1918, 1921, AND 1926.—GENERAL SUMMARY OF RESULTS.

Year.	All Races.	European.			Non-European.		
	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1904...	5,175,824	635,117	481,689	1,116,806	2,047,118	2,011,900	4,059,018
1911...	5,973,394	685,164	591,078	1,276,242	2,384,228	2,312,924	4,697,152
1918...	—	728,866	692,915	1,421,781	—	—	—
1921...	6,928,580	782,035	737,453	1,519,488	2,754,957	2,654,135	5,409,092
1926*..	—	854,157	817,949	1,672,106	—	—	—

* Unaudited results.

(iii) NON-EUROPEAN POPULATION OF THE AREA OF THE UNION (CENSUS), 1904, AND OF THE UNION (CENSUS), 1911 AND 1921.

Year.	Total Non-European.			Bantu.		Asiatic.		Mixed and Other.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1904	4,059,018	2,047,118	2,011,900	1,737,119	1,753,937	82,809	39,925	227,190	218,038
1911	4,697,152	2,384,228	2,312,924	2,022,949	1,996,057	96,201	56,108	265,078	260,759
1921	5,409,092	2,754,957	2,654,135	2,382,397	2,315,416	97,336	68,395	275,224	270,324

(iv) POPULATION OF EACH PROVINCE OF THE UNION (CENSUS), 1911, 1918 (EUROPEAN ONLY), AND 1921.

Province.	1911.		1918. European.	1921.		1926.*		
	European.	Non-European.		European.	Non-European.	Europeans.		
						Male.	Female.	Total.
Cape of Good Hope.....	582,377	1,982,588	618,825	650,609	2,132,110	356,812	348,086	704,898
Natal.....	98,114	1,095,929	121,931	136,838	1,292,560	80,810	77,444	158,254
Transvaal..	420,562	1,265,650	499,347	543,485	1,544,151	312,705	294,058	606,763
Orange Free State.....	175,189	352,985	181,678	188,556	440,271	103,830	98,361	202,191
UNION....	1,276,242	4,697,152	1,421,781	1,519,488	5,409,092	854,157	817,949	1,672,106

* Preliminary unaudited figures.

Population of the Union from 1904.—The estimates of population which are given hereunder have been framed on the assumption that the rate of increase between any two censuses is uniform, but special allowances have been made for the influenza epidemic of 1918, and for the male absentees specially enumerated in that year (see paragraph 1 above). The estimated figures are based (*a*) for 1910 (all races) on the rate of increase between the censuses of 1904 to 1911; (*b*) for 1911 to 1917 (European population) on the rate of increase between 1911 and 1918 censuses; (*c*) for 1918 to 1920 (European population) on the rate of increase between 1918 and 1921 censuses; for 1921 to 1926 (European population) on the net increase due to births, deaths, and migration; and (*d*) for 1911 to 1926 (non-European population) on the rate of increase between 1911 and 1921 censuses.

(v) POPULATION RETURNS FOR 1904, 1911, AND 1921, ESTIMATED MEAN POPULATION OF THE UNION IN EACH YEAR FROM 1910, AND EUROPEAN POPULATION OF THE UNION, 1918.

Year.	Total Population.	European.			Non-European.			
		Male.	Female.	Total.	Bantu.	Asiatic.	Mixed and Other.	Total.
1904†...	**5,175,824**	**635,117**	**481,689**	**1,116,806**	**3,491,056**	**122,734**	**445,228**	**4,059,018**
1910....	5,877,076	676,590	578,955	1,255,545	3,953,209	151,111	517,211	4,621,531
1911†...	**5,973,394**	**685,164**	**591,078**	**1,276,242**	**4,019,006**	**152,309**	**525,837**	**4,697,152**
1911‡...	5,991,899	686,878	593,503	1,280,381	4,032,476	152,583	526,459	4,711,518
1912....	6,102,929	697,166	608,051	1,305,217	4,113,296	154,226	530,190	4,797,712
1913....	6,213,959	707,454	622,599	1,330,053	4,194,116	155,868	533,922	4,883,906
1914....	6,324,988	717,742	637,147	1,354,889	4,274,936	157,510	537,653	4,970,099
1915....	6,436,019	728,030	651,695	1,379,725	4,355,756	159,153	541,385	5,056,294
1916....	6,547,048	738,318	666,243	1,404,561	4,436,576	160,795	545,116	5,142,487
1917....	6,658,076	748,606	680,791	1,429,397	4,517,396	162,435	548,848	5,228,679
1918*†..	—	**728,866**	**692,915**	**1,421,781**	—	—	—	—
1918‡...	6,768,987	758,623	695,490	1,454,113	4,598,217	164,078	552,579	5,314,874
1919....	6,727,489	766,184	710,235	1,476,419	4,549,642	162,721	538,707	5,251,070
1920....	6,837,174	774,830	725,081	1,499,911	4,630,463	164,362	542,438	5,337,263
1921†...	**6,928,580**	**782,035**	**737,453**	**1,519,488**	**4,697,813**	**165,731**	**545,548**	**5,409,092**
1921‡. .	6,946,048	783,623	738,967	1,522,590	4,711,283	166,005	546,170	5,423,458
1922....	7,065,893	799,733	756,508	1,556,241	4,792,103	167,648	549,901	5,509,652
1923....	7,175,579	808,379	771,354	1,579,733	4,872,923	169,291	553,632	5,595,846
1924....	7,293,927	823,290	787,484	1,610,774	4,953,743	170,934	558,476	5,683,153
1925....	7,407,932	836,050	801,422	1,637,472	5,034,563	172,577	563,320	5,770,460
1926....	7,537,624	858,183	821,674	1,679,857	5,115,383	174,220	568,164	5,857,767

* Excluding male absentees specially enumerated under Act No. 15 of 1918 (see paragraph 1 above).
† Census. ‡ Mean.

NOTE.—The quinquennial census of the European population was taken on the 4th May, 1926.

Estimated Population of Provinces.—The estimated population in each Province for the years 1911 to 1925, distinguishing race, is given in the table hereunder.

(vi) ESTIMATED MEAN POPULATION OF PROVINCES FROM 1911.

Year.	Cape.	Natal.	Transvaal.	Orange Free State.	Cape.	Natal.	Transvaal.	Orange Free State.
	European.				*Bantu.*			
1911....	583,502	98,761	422,741	175,377	1,523,243	956,734	1,224,931	327,568
1912....	590,263	102,632	435,803	176,519	1,543,067	976,750	1,255,448	338,031
1913....	597,024	106,505	448,861	177,663	1,562,891	996,766	1,285,966	348,493
1914....	603,785	110,376	461,923	178,805	1,582,715	1,016,782	1,316,483	358,956
1915....	610,547	114,247	474,981	179,950	1,602,539	1,036,798	1,347,001	369,418
1916....	617,307	118,117	488,044	181,093	1,622,364	1,056,814	1,377,518	379,880
1917....	624,068	121,986	501,104	182,239	1,642,188	1,076,830	1,408,035	390,343
1918....	630,933	125,906	513,748	183,526	1,662,012	1,096,847	1,438,553	400,805
1919....	637,680	129,654	523,849	185,236	1,603,817	1,103,108	1,439,920	402,797
1920....	644,732	133,572	534,560	187,047	1,623,641	1,123,124	1,470,438	413,260
1921....	651,428	137,417	544,987	188,758	1,643,466	1,143,140	1,500,955	423,722
1922....	662,779	142,262	559,370	191,830	1,663,290	1,163,156	1,531,473	434,184
1923....	669,830	146,180	570,080	193,643	1,683,114	1,183,172	1,561,991	444,646
1924....	680,053	150,795	583,538	196,388	1,702,938	1,203,188	1,592,509	455,108
1925....	688,430	155,011	595,431	198,600	1,722,762	1,223,204	1,623,027	465,570
	Asiatic.				*Mixed and Other.*			
1911....	7,696	133,611	11,163	113	455,731	9,127	34,695	26,906
1912....	7,733	134,643	11,708	142	460,363	9,339	34,465	26,023
1913....	7,770	135,675	12,252	171	464,995	9,551	34,235	25,141
1914....	7,807	136,707	12,797	199	469,626	9,764	34,005	24,258
1915....	7,844	137,739	13,342	228	474,258	9,976	33,775	23,376
1916....	7,881	138,771	13,886	257	478,890	10,188	33,545	22,493
1917....	7,918	139,802	14,430	285	483,522	10,400	33,315	21,611
1918....	7,955	140,834	14,975	314	488,154	10,612	33,085	20,728
1919....	7,628	139,757	14,993	343	475,760	10,718	32,713	19,516
1920....	7,665	140,789	15,537	371	480,392	10,930	32,483	18,633
1921....	7,702	141,821	16,082	400	485,024	11,142	32,253	17,751
1922....	7,739	142,853	16,627	429	489,656	11,354	32,023	16,868
1923....	7,776	143,885	17,172	458	494,288	11,566	31,793	15,985
1924....	7,813	144,917	17,717	487	498,920	11,778	31,793	15,985
1925....	7,850	145,949	18,262	516	503,552	11,990	31,793	15,985

Increase in the Population of the Union.—The average annual rate of increase in the population of the Union as shown in the following table was lower for the period 1911 to 1921 than between 1904 and 1911, and notably so in the case of the mixed races and the Asiatics. The former suffered severely in the influenza epidemic of 1918, and in the case of the latter the decline in the average annual increase was due to the considerable emigration of Indians, of whom approximately 29,000 were repatriated between 1911 and 1921. In Natal the number of Indian males decreased by 86 during the ten years, while the number of females showed an increase of 8,391, giving a total increase of 8,305 in the Indian population of that Province, equivalent to an annual rate of 0·62 per cent.

(vii) INCREASE IN THE POPULATION OF THE UNION, 1904 TO 1921.

RACE.	Census, 1904.	1911.				1921.			
		Number.	Increase over 1904.	Increase per cent. over 1904.	Average Annual Rate of Increase.	Number.	Increase over 1911.	Increase per cent. over 1911.	Average Annual Rate of Increase.
European.	1,116,806	1,276,242	159,436	14·28	1·93	1,519,488	243,246	19·06	1·76
Native (Bantu)	3,491,056	4,019,006	527,950	15·12	2·03	4,697,813	678,807	16·89	1·57
Asiatic....	122,734	152,203	29,469	24·01	3·12	165,731	13,528	8·89	·86
Mixed and Other...	445,228	525,943	80,715	18·13	2·41	545,548	19,605	3·73	·37
TOTAL..	5,175,824	5,973,394	797,570	15·41	2·07	6,928,580	955,186	15·99	1·49

2. **Regional Divisions.**—These divisions are non-administrative, but each comprises a group of magisterial districts. The boundaries, although somewhat arbitrarily drawn, follow closely the different climatic conditions found in the Union due to altitude, varying rainfall, etc.

The Union is divided into six divisions as follows :—

I. *South-Western Coastal.*—Extending from Malmesbury District to Alexandria District inclusive.

II. *South-Eastern Coastal.*—Mainly the coastal districts of Transkei, Natal, and Zululand from Bathurst District to the border of Portuguese East Africa.

III. *Karroo and Cape Central.*—Bounded on the south by Division I, on the east by Division V, and on the north by the Highveld region. It includes the western coastal districts to the Orange River.

IV. *Highveld.*—This embraces the greater portion of the inland plateau land and includes the whole of the Orange Free State, the inland districts of Natal, that portion of Transvaal lying approximately south of the 25° of south latitude, the districts of the Cape Province situated in Bechuanaland, and those adjacent to the south-western border of the Orange Free State.

V. *Cape Thorn Veld.*—Comprising the Transkei hinterland and adjacent districts.

VI. *Transvaal Bushveld.*—This comprises the districts lying approximately north of the 25° of south latitude.

POPULATION IN SIX NON-ADMINISTRATIVE REGIONAL DIVISIONS, CENSUSES OF 1911 AND 1921.

Regional Division.	1911.			1921.		
	Male.	Female.	Total.	Male.	Female.	Total.
EUROPEAN.						
I. South-Western Coastal....	124,935	117,364	242,299	149,827	147,730	297,557
II. South-Eastern Coastal.....	55,885	50,067	105,952	72,509	70,542	143,051
III. Karroo and Cape Central	88,004	83,481	171,485	87,733	85,064	172,797
IV. Highveld.....	359,805	291,660	651,465	407,937	375,508	783,445
V. Cape Thorn Veld.....	29,899	28,030	57,929	28,897	27,674	56,571
VI. Transvaal Bushveld.....	24,332	19,852	44,184	35,132	30,935	66,067
NON-EUROPEAN.						
I. South-Western Coastal....	143,953	139,603	283,556	174,946	159,931	334,877
II. South-Eastern Coastal.....	581,253	655,518	1,236,771	675,891	720,097	1,395,988
III. Karroo and Cape Central.	127,700	126,197	253,897	134,883	130,281	265,164
IV. Highveld.....	996,611	735,874	1,732,485	1,172,461	924,546	2,097,007
V. Cape Thorn Veld.....	279,512	326,079	605,591	288,103	342,985	631,088
VI. Transvaal Bushveld.....	253,102	329,385	582,487	308,673	376,295	684,968
ALL RACES.						
I. South-Western Coastal....	268,888	256,967	525,855	324,773	307,661	632,434
II. South-Eastern Coastal.....	637,138	705,585	1,342,723	748,400	790,639	1,539,039
III. Karroo and Cape Central.	215,704	209,678	425,382	222,616	215,345	437,961
IV. Highveld.....	1,356,416	1,027,534	2,383,950	1,580,398	1,300,054	2,880,452
V. Cape Thorn Veld.....	309,411	354,109	663,520	317,000	370,659	687,659
VI. Transvaal Bushveld.....	277,434	349,237	626,671	343,805	407,230	751,035

3. **Proportions of the Races in British South Africa.**—The following table gives for purposes of comparison with other parts of British South Africa the proportions of the European population to the non-European population in the Union as returned at the Censuses of 1904, 1911, and 1921 :—

NUMBERS OF EUROPEAN AND NON-EUROPEAN POPULATION IN BRITISH SOUTH AFRICA AND PROPORTION PER CENT. OF EACH RACE TO TOTAL POPULATION, 1904, 1911, AND 1921.

Territory.	Population.			Proportion per Cent. of Total Population.	
	Total.	European.	Non-European.	European.	Non-European.
1904.					
Union of South Africa.....	5,175,824	1,116,806	4,059,018	21·58	78·42
Basutoland.....	348,848	895	347,953	0·26	99·74
Bechuanaland Protectorate...	120,776	1,004	119,772	0·83	99·17
Swaziland.....	85,491	890	84,601	1·04	98·96
Southern Rhodesia.....	606,033	12,596	593,437	2·08	97·92
TOTAL—BRITISH SOUTH AFRICA	6,336,972	1,132,191	5,204,781	17·87	82·13
1911.					
Union of South Africa.....	5,973,394	1,276,242	4,697,152	21·37	78·63
Basutoland.....	404,507	1,396	403,111	0·35	99·65
Bechuanaland Protectorate...	125,350	1,692	123,658	1·35	98·65
Swaziland.....	99,959	1,083	98,876	1·08	98·92
Southern Rhodesia.....	771,077	23,606	747,471	3·06	96·94
TOTAL—BRITISH SOUTH AFRICA	7,374,287	1,304,019	6,070,268	17·68	82·32
1921					
Union of South Africa.....	6,928,580	1,519,488	5,409,092	21·93	78·07
South West Africa.....	227,739	19,432	208,307	8·53	91·47
Basutoland.....	498,781	1,603	497,178	0·32	99·68
Bechuanaland Protectorate...	152,983	1,743	151,240	1·14	98·86
Swaziland.....	106,961	2,205	104,756	2·06	97·94
Southern Rhodesia.....	899,187	33,620	865,567	3·74	96·26
TOTAL—BRITISH SOUTH AFRICA	8,814,231	1,578,091	7,236,140	17·90	82·10

4. **Proportions of the Races in the Population of the Union.**—The proportion per cent. of European to the total population of each Province at the various censuses is shown in the subjoined table (ii). It should be noted that between 1865 and 1891 the population of the Cape Colony was affected by the annexation of areas thickly populated by natives. Between 1891 and 1904, in spite of the annexation of Pondoland and Bechuanaland with 10,300 European and 276,522 of the non-European races, the proportion of European population to non-European slightly increased. In the Orange Free State the proportion of European to non-European population is highest, in Natal lowest, but the former figure has declined from census to census, while the latter shows a rise between 1911 and 1921. The Transvaal occupies an intermediate position, with a constantly rising ratio in favour of the European population.

Table (i) gives the racial distribution of the population of the Union in the census years 1904, 1911, and 1921.

(i) RACIAL DISTINCTIONS OF THE POPULATION AT SUCCESSIVE CENSUSES, SHOWING THE PROPORTIONS OF EACH RACE TO THE TOTAL POPULATION.

Census Year.	European.		Native.		Asiatic.		Mixed and Other.		Total Non-European.		Total all Races.	
	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.
1904.	1,116,806	21·6	3,491,056	67·4	122,734	2·4	445,228	8·6	4,059,018	78·4	5,175,824	100·0
1911.	1,276,242	21·4	4,019,006	67·3	152,309	2·5	525,837	8·8	4,697,152	78·6	5,973,394	100·0
1921.	1,519,488	21·9	4,697,813	67·8	165,731	2·4	545,548	7·9	5,409,092	78·1	6,928,580	100·0

(ii) PROPORTION PER CENT. OF EUROPEAN TO TOTAL POPULATION OF EACH PROVINCE AT EACH CENSUS.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1865....	36·58	—	—	—	—
1875....	32·84	—	—	—	—
1880....	—	—	—	45·70	—
1890....	—	—	—	37·45	—
1891....	24·68	—	—	—	—
1904....	24·06	8·76	23·41	36·84	21·6
1911....	22·71	8·22	24·94	33·19	21·4
1921....	23·38	9·57	26·03	29·99	21·9

5. **Population of Each Province.**—The following tables give the number of the population of each Province at each census, distinguishing between European and non-European. An analysis of the figures up to the census of 1921 is given in the Report on the Census of 1921. Between 1911 and 1921 the male European population of the *Cape* increased by 28,000, and the female European population by 40,000. These figures reflect not only a natural tendency, but also the fact that there has been a steady flow of male migration from the Cape to other parts of the Union chiefly the Transvaal.

(i) POPULATION OF THE CAPE OF GOOD HOPE AT EACH CENSUS, ACCORDING TO SEX AND RACE.

Census Year.	All Races.			European.		Non-European.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.
1865...	496,381	255,760	240,621	95,410	86,182	160,350	154,439
1875...	720,984	369,628	351,356	123,910	112,873	245,718	238,483
1891...	1,527,224	767,327	759,897	195,956	181,031	571,371	578,866
1904...	2,409,804	1,218,940	1,190,864	318,544	261,197	900,396	929,667
1911...	2,564,965	1,255,671	1,309,294	301,268	281,109	954,403	1,028,185
1918...	—	—	—	311,312	307,513	—	—
1921...	2,782,719	1,348,589	1,434,130	329,394	321,215	1,019,195	1,112,915

(ii) CAPE OF GOOD HOPE.—NON-EUROPEAN POPULATION AT EACH CENSUS.

Census Year.	Total Persons.			Bantu.		Asiatic.		Mixed and Other.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1875	484,201	245,718	238,483	146,252	141,387	Not distinguished		99,466	97,096
1891	1,150,237	571,371	578,866	415,201	422,935	1,305	395	154,865	155,536
1904	1,830,063	900,396	929,667	692,728	732,059	9,316	926	198,352	196,682
1911	1,982,588	954,403	1,028,185	721,441	798,498	6,581	1,083	226,381	228,604
1921	2,132,110	1,019,195	1,112,915	769,947	870,215	5,724	1,972	243,524	240,728

Between the years 1891 and 1904 the European population of *Natal*, excluding Zululand (annexed in 1897), and the districts of Vryheid, Utrecht, and part of Wakkerstroom transferred from the Transvaal in 1903, increased from 46,788 to 87,776, i.e. by 87·60 per cent. The 1891 figures include *mixed races* not specified separately. The number of these was small, and its inclusion would not affect materially the rate of increase. During the period 1904 to 1911 the European population was practically stationary, there having been a decrease of 4,263 males (of which number 1,300 are accounted for by the reduction of military

garrisons) and an increase of 5,268 females. Between 1911 and 1921 the European population increased by 39,000, of whom 46 per cent. were males. The Asiatic increase of 8,229 in the same period was composed entirely of females. The male Asiatic population declined by 163 and the male Indian population by 86.

(iii) NATAL.—POPULATION AT EACH CENSUS.

Census Year.	All Races.			European.		Non-European.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.
1891.....	543,913	268,062	275,851	25,787	21,001	242,275	254,850
1904.....	1,108,754	550,631	558,123	56,758	40,351	493,873	517,772
1911.....	1,194,043	564,648	629,395	52,495	45,619	512,153	583,776
1918.....	—	—	—	62,745	59,186	—	—
1921.....	1,429,398	707,600	721,798	70,477	66,361	637,123	655,437

(iv) NATAL.—NON-EUROPEAN POPULATION AT EACH CENSUS.

Census Year.	Total Persons.			Bantu.		Asiatic.		Mixed and Other.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1891....	497,125	242,275	254,850	216,589	239,394	25,686	15,456	—	—
1904....	1,011,645	493,873	517,772	426,766	477,275	63,497	37,421	3,610	3,076
1911....	1,095,929	512,153	583,776	427,061	526,337	80,477	52,943	4,615	4,496
1921....	1,292,560	637,123	655,437	551,025	588,779	80,314	61,335	5,784	5,323

In 1890 the European population of the *Transvaal* as now constituted was 113,713. In 1904 the number had risen to 297,277, and in 1911 it stood at 420,562. The figures for 1904 and 1911 include respectively about 8,200 and 5,000 men of the military garrison. The normal population for the years 1904 and 1911 was therefore 289,000 and 416,000 respectively, marking increases as follows between the various census dates to 1921 :—

1890 to 1904	175,000,	equal to	153·51 per cent.
1904 „ 1911	127,000,	„	43·94 „
1890 „ 1911	302,000,	„	264·91 „
1911 „ 1921	128,000,	„	30·76 „
1890 „ 1921	430,000,	„	378·23 „

The Witwatersrand gold-mining area, comprising the Districts of Springs, Benoni, Boksburg, Germiston, Johannesburg, and Krugersdorp, contains approximately one-sixth of the total European population of the Union, and nearly one-half of the European population of the Transvaal Province.

(v) TRANSVAAL.—POPULATION AT EACH CENSUS.

Census Year.	All Races.			European.		Non-European.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.
1890.....	—	—	—	66,498	52,630	—	—
1904.....	1,269,951	702,569	567,382	178,244	119,033	524,325	448,349
1911.....	1,686,212	971,555	714,657	236,913	183,649	734,642	531,008
1918.....	—	—	—	260,840	238,507	—	—
1921.....	2,087,636	1,159,430	928,206	284,388	259,097	875,042	669,109

(vi) TRANSVAAL.—NON-EUROPEAN POPULATION AT CENSUSES OF 1904, 1911, AND 1921.

CENSUS YEAR.	TOTAL PERSONS.			BANTU.		ASIATIC.		MIXED AND OTHER.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1904....	972,674	524,325	448,349	499,719	437,408	9,799	1,522	14,807	9,419
1911....	1,265,650	734,642	531,008	705,862	513,983	8,990	2,022	19,790	15,003
1921....	1,544,151	875,042	669,109	847,446	648,423	11,056	4,935	16,540	15,751

The first census of the *Orange Free State* was taken in 1880, when the European population was returned as 61,022. According to the next census in 1890 the population had increased to 77,716, an increase of 16,694, or 27·36 per cent. in ten years. Making allowance for troops stationed in the Province in 1904 and 1911, the figures for those two years are 135,000 and 171,000 respectively, showing increases as follows between the various census dates to 1921 :—

1890 to 1904 ..	an increase of	57,000,	equal to	73·08	per cent.
1904 to 1911 ..	„	36,000,	„	26·67	„
1890 to 1911 ..	„	93,000,	„	119·23	„
1911 to 1921 ..	„	18,000,	„	10·53	„
1890 to 1921 ..	„	111,000,	„	142·83	„

(vii) ORANGE FREE STATE.—POPULATION AT EACH CENSUS.

CENSUS YEAR.	ALL RACES.			EUROPEAN.		NON-EUROPEAN.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.
1880.....	133,518	70,150	63,368	31,906	29,116	38,244	34,252
1890.....	207,503	108,362	99,141	40,571	37,145	67,791	61,996
1904.....	387,315	210,095	177,220	81,571	61,108	128,524	116,112
1911.....	528,174	277,518	250,656	94,488	80,701	183,030	169,955
1918.....	—	—	—	93,969	87,709	—	—
1921.....	628,827	321,373	307,454	97,776	90,780	223,597	216,674

(viii) ORANGE FREE STATE.—NON-EUROPEAN POPULATION AT EACH CENSUS.

CENSUS YEAR.	TOTAL PERSONS.			BANTU.		ASIATIC.		MIXED AND OTHER.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1880.....	72,496	38,244	34,252	—	—	—	—	—	—
1890.....	129,787	67,791	61,996	—	—	—	—	—	—
1904.....	244,636	128,524	116,112	117,906	107,195	197	56	10,421	8,861
1911.....	352,985	183,030	169,955	168,585	157,239	87	20	14,358	12,696
1921.....	440,271	223,597	216,674	213,979	207,999	242	153	9,376	8,522

§ 2. Analysis of Population of Union.

1. **Area of the Union.**—The total area of the Union is 472,347 square miles,* divided between the Provinces as follows :—

AREA OF UNION AND PROVINCES.

PROVINCE.	Area in Square Miles.	Proportion per Cent. of Total Area of Union.	Proportion per Cent. of Total Population, Census, 1911.	Proportion per Cent. of Total Population, Census, 1921.
Cape of Good Hope.....	276,966	58·64	42·94	40·16
Natal.....	35,284	7·47	19·99	20·63
Transvaal.....	110,450	23·38	28·23	30·13
Orange Free State.....	49,647*	10·51	8·84	9·08

* Adjusted figure (see page 860).

2. **Density of the Population.**—The Cape, although the largest, was in 1921 the most thinly populated Province, while Natal with the smallest area had the largest number of persons to the square mile, there being one individual to 15·80 acres, compared with 63·68 in the Cape Province, 51·28 in the Orange Free State, and 33·86 in the Transvaal. The number of persons to the square mile for the Union was 14·64, of whom 3·21 were of European race and 11·41 of other races. The density of the population in each of the four Provinces and in the Union in census years was as follows :—

DENSITY OF POPULATION, 1921, AND PREVIOUS CENSUS YEARS.

(Number per square mile.)

Province.	1865.	1875.	1880.	1890.	1891.	1904.	1911.	1921.
EUROPEAN.								
Cape.....	0·92	1·18	—	—	1·70	2·09	2·10	2·35
Natal.....	—	—	—	—	2·29	2·74	2·78	3·88
Transvaal.....	—	—	—	1·05	—	2·69	3·81	4·92
Orange Free State.....	—	—	1·21	1·54	—	2·87	3·53	3·80
Union.....	—	—	—	—	—	2·36	2·70	3·22
NON-EUROPEAN.								
Cape.....	1·60	2·42	—	—	5·20	6·61	7·16	7·70
Natal.....	—	—	—	—	24·30	28·60	31·05	36·63
Transvaal.....	—	—	—	†	—	8·81	11·46	13·98
Orange Free State.....	—	—	1·44	2·58	—	4·93	7·11	8·87
Union.....	—	—	—	—	—	8·59	9·94	11·45
TOTAL—ALL RACES.								
Cape.....	2·52	3·60	—	—	6·90	8·70	9·26	10·05
Natal.....	—	—	—	—	26·59	31·34	33·83	40·51
Transvaal.....	—	—	—	—	—	11·50	15·27	18·90
Orange Free State.....	—	—	2·65	4·12	—	7·80	10·64	12·67
Union.....	—	—	—	—	—	10·95	12·64	14·67

† Census of Europeans only.

3. **Density of Rural Population.**—In previous years it has been the practice to compute the density of population for Provinces and districts irrespective of the number and extent of the towns and villages situated therein, which in effect gives a false comparison between differently constituted districts. Moreover, districts vary considerably in extent and are primarily created for effective administration and not on a population basis. In a young country like the Union the true density should be judged on the basis of the distribution of the rural community living in the rural or farming areas. This has been computed for the Census of 1921, and the urban population, numbering 847,508 persons and occupying 4,888 square miles of municipal lands has been eliminated from the total. The results are given in comparative form in the subjoined table, which distinguishes Europeans from non-Europeans.

POPULATION AND DENSITY* IN RURAL AREAS—CENSUS OF 1921.

Province.	Area in Square Miles.	European.		Non-European.		All Races.	
		Population.	Density.	Population.	Density.	Population.	Density.
Cape	274,174	291,525	1·06	1,783,112	6·51	2,074,637	7·57
Natal	34,994	55,684	1·59	1,203,025	34·38	1,258,709	35·97
Transvaal	109,376	210,961	1·93	1,161,574	10·62	1,372,535	12·55
Orange Free State	48,915	113,810	2·33	373,204	7·63	487,014	9·96
UNION	467,459	671,980	1·44	4,520,915	9·67	5,192,895	11·11

* Number per square mile.

4. **Densely and Sparsely Populated Districts.**—The subjoined table gives the ten most thickly populated and the ten most sparsely populated districts of the Union according to the returns of the Census of 1921. It must be understood that the majority of the densely populated districts contain one or more large towns, while others consist largely of mining areas.

DENSELY AND SPARSELY POPULATED DISTRICTS.

District.	Persons to the Sq. Mile.			District.	Persons to the Sq. Mile.		
	All Races.	European.	Non-European.		All Races.	European.	Non-European.
Johannesburg	1605·07	836·29	768·78	Gordonia	0·73	0·26	0·47
Durban	1474·82	536·97	937·85	Fraserburg	0·95	0·50	0·45
Benoni	677·13	198·96	478·17	Kenhardt	1·00	0·54	0·46
Boksburg	506·27	166·32	339·95	Namaqualand	1·22	0·35	0·87
Germiston	462·85	189·80	273·05	Calvinia	1·25	0·58	0·67
Cape	420·46	225·23	195·23	Sutherland	1·30	0·72	0·58
Wynberg	411·89	183·28	228·61	Carnarvon	1·32	0·58	0·75
Port Elizabeth	306·97	148·02	158·95	Prieska	1·47	0·61	0·86
Springs	192·45	42·90	149·55	Van Rhynsdorp	1·67	0·87	0·80
Inanda	161·41	8·57	152·84	Vryburg	1·74	0·35	1·40

5. **Density Compared with other Countries.**—The table given hereunder shows for the purposes of comparison with the Union the density of population in various countries at the latest available dates :—

DENSITY OF POPULATION IN VARIOUS COUNTRIES.

Country.	Density.*	Country.	Density.*
Belgium (1919)	665·12	Sweden (1920)	34·11
Netherlands (1920)	537·77	Swaziland (1921)	16·02
United Kingdom (1921)	481·89	New Zealand (1921)	11·61
Italy (1920)	319·63	Argentine (1920)	7·66
Germany (1919)	323·26	Southern Rhodesia (1921)	5·92
British India (1921)	226·09	Canada (1921)	2·36
France (1921)	176·14	Commonwealth of Australia (1921)	1·82
Spain (1920)	109·55	South-West Africa (1921)	0·71
Basutoland (1921)	42·57	UNION OF SOUTH AFRICA (1921)	14·67
United States of America (1920)	35·50		

* Number of persons to the square mile.

6. **Distribution of Races in Urban* and Rural Areas.**—The table hereunder shows the distribution of races between urban and rural areas in the Union according to the returns at the Censuses of 1904, 1911, 1918, and 1921, the races being distinguished as European and non-European.

* An Urban Area is defined as an area included within any City, Borough, Municipality, Village Management, Health Committee, Township, or other local Board constituted under any law, and possessing some form of *urban local authority*.

The bulk of the non-European population resides in the rural areas of the Union, which term embraces all native reserves in the Union proper and in the Native Territories. The proportion of the non-European population enumerated in urban areas at the last three Censuses at which non-Europeans were included was as given in the table shown below. The reasons given above in regard to the areas considered urban at various Censuses apply in the same measure to the proportions of the non-European population as to the proportions of the European population. At the Census of 1911 there was a slightly greater proportion in urban areas than at the Census of 1921. The natural habitat of the Bantu is the veld or rural region, and the rate of increase is there entirely natural. The Bantu population, which forms the greater part of the coloured population, should therefore increase in the rural areas in greater numbers, and also in greater proportion than in the urban areas. This is borne out by the results of the Censuses of 1911 and 1921.

DISTRIBUTION OF POPULATION BETWEEN URBAN AND RURAL AREAS ACCORDING TO RACE AND SEX, 1904, 1911, 1918, AND 1921.

Year.	Urban Areas.			Rural Areas.			Proportion per cent. in	
	Male.	Female.	Total.	Male.	Female.	Total.	Urban.	Rural.
EUROPEAN.								
1904....	348,834	242,092	590,926	286,283	239,597	525,880	52·91	47·09
1911....	353,380	304,906	658,286	331,784	286,172	617,956	51·70	48·30
1918....	382,458	384,391	766,849	346,408	308,524	654,932	53·94	46·06
1921....	424,236	423,272	847,508	357,799	314,181	671,980	55·78	44·22
NON-EUROPEAN.								
1904....	—	—	608,799	—	—	3,450,219	15·00	85·00
1911....	570,111	249,471	819,582	1,814,117	2,063,453	3,877,570	17·45	82·55
1921....	590,224	298,063	888,287	2,164,733	2,356,072	4,520,805	16·42	83·58
ALL RACES.								
1904....	—	—	1,199,725	—	—	3,976,099	23·18	76·82
1911....	923,491	554,377	1,477,868	2,145,901	2,349,625	4,495,526	24·74	75·26
1921....	1,014,460	721,335	1,735,795	2,522,532	2,670,253	5,192,785	25·05	74·95

7. **Proportions of Races in Urban and Rural Areas.**—Details of the proportions of the four main race divisions of the population in the urban and rural areas of the Union are given in the subjoined table as returned at the Census of 1921 :—

PROPORTIONS OF RACES IN URBAN AND RURAL AREAS, UNION, 1921.

Race.	Proportion Per Cent. of Each Race.			Percentage Distribution of Races.		
	Urban Population.	Rural Population.	Total.	Urban Areas.	Rural Areas.	Total.
European.....	48·83	12·94	21·93	55·78	44·22	100
Bantu.....	33·82	79·16	67·80	12·50	87·50	100
Asiatic.....	2·95	2·21	2·39	30·90	69·10	100
Mixed and Other	14·40	5·69	7·88	45·82	54·18	100
TOTAL.....	100·00	100·00	100·00	25·05	74·95	100

The percentage of the urban European population varied from 46·50 in Transvaal to 52·71 in the Orange Free State. The percentage of the rural European population presented marked contrasts, the Cape and Transvaal Provinces being almost on a level with 14·05 and 15·37 per cent. respectively, while Natal had only 4·42 per cent. and the Orange Free State had 23·37 per cent.

8. **Population Returns for Principal Towns.**—The following table gives a list of all towns (including suburbs) in the Union with a population of 2,000 Europeans and over as returned at the Census of 1921.

Columns have been added to show the relative order of the towns, according to their European populations, at the Censuses of 1911, 1918, and 1921. In 1911 there were 35 towns with a European population of over 2,000; in 1918 the number was 46; and in 1921 it was 54. Jagersfontein and Ficksburg, which in 1918 had a European population of more than 2,000, in 1921 fell below that number, and are not shown in the table.

PRINCIPAL TOWNS (INCLUDING SUBURBS) IN THE UNION CLASSIFIED ACCORDING TO THE NUMBER OF EUROPEAN INHABITANTS, CENSUSES 1911, 1918, AND 1921.

Town.	Province.	Population, 1921.					Relative Order, Census of—		
		European.	Native.	Asiatic.	Mixed and Other.	All Races.	1921.	1918.	1911.
Over 20,000.									
Johannesburg	T.	151,836	118,353	6,229	11,713	288,131	1	1	1
Cape Town	C.	113,302	4,680	2,435	86,987	207,404	2	2	2
Durban	N.	57,095	37,530	47,811	3,874	146,310	3	3	4
Pretoria	T.	45,361	24,794	1,757	2,140	74,052	4	4	3
Port Elizabeth	C.	25,982	6,149	1,320	12,643	46,094	5	5	5
East London	C.	20,374	11,601	692	2,006	34,673	6	8	8
Over 10,000 and less than 20,000.									
Bloemfontein	O.F.S.	19,367	17,918	126	1,623	39,034	7	11	10
Kimberley	C.	18,288	13,048	920	7,446	39,702	8	9	6
Pietermaritzburg	N.	17,998	9,992	6,944	1,089	36,023	9	6	9
Germiston	T.	15,697	25,623	470	565	42,355	10	10	7
Benoni	T.	14,483	31,529	570	1,059	47,641	11	7	13
Krugersdorp	T.	13,439	28,000	328	749	42,516	12	12	11
Boksburg	T.	12,416	24,318	620	625	37,979	13	13	12
Over 5,000 and less than 10,000.									
Potchefstroom	T.	8,189	4,244	224	708	13,365	14	14	14
Uitenhage	C.	7,815	3,187	160	3,052	14,214	15	16	17
Grahamstown	C.	7,237	5,631	143	1,898	14,909	16	17	16
Roodepoort-Maraisburg	T.	7,140	15,895	283	764	24,082	17	15	15
Brakpan	T.	7,108	17,331	39	186	24,664	18	†	†
Kingwilliamstown	C.	5,928	2,875	68	778	9,649	19	18	18
Paarl	C.	5,760	213	30	6,395	12,398	20	19	20
Oudtshoorn	C.	5,552	138	18	5,010	10,718	21	20	19
Queenstown	C.	5,231	6,134	81	1,422	12,868	22	21	22
Over 2,000 and less than 5,000.									
Graaff-Reinet	C.	4,516	1,554	18	3,191	9,279	23	23	21
Springs	T.	4,488	14,518	207	187	19,400	24	28	*
Kroonstad	O.F.S.	4,291	4,472	64	509	9,336	25	25	28
Worcester	C.	3,894	118	48	4,581	8,641	26	24	24
Stellenbosch	C.	3,695	122	33	3,455	7,305	27	26	27
Bethlehem	O.F.S.	3,383	2,840	10	132	6,365	28	34	*
Cradock	C.	3,275	1,759	114	1,659	6,807	29	27	25
Ladysmith	N.	3,221	1,930	1,551	81	6,783	30	29	31
Klerksdorp	T.	3,121	2,062	201	302	5,686	31	37	29
Beaufort West	C.	3,063	1,270	15	1,856	6,204	32	30	34
Simonstown	C.	3,005	387	27	1,990	5,409	33	22	26
George	C.	2,927	102	14	1,763	4,806	34	35	33
Ermelo	T.	2,716	1,585	118	136	4,555	35	40	*
Middelburg	T.	2,705	2,066	158	114	5,043	36	38	*
Wellington	C.	2,666	79	20	2,403	5,168	37	33	32
Parys	O.F.S.	2,641	947	—	65	3,653	38	41	*
Mossel Bay	C.	2,638	51	11	3,026	5,726	39	36	*
Robertson	C.	2,587	13	5	1,838	4,443	40	31	30
Harrismith	O.F.S.	2,553	3,547	4	130	6,234	41	32	23
Pietersburg	T.	2,452	3,325	183	103	6,063	42	42	*
Aliwal North	C.	2,444	2,969	22	862	6,297	43	39	*
Somerset Strand	C.	2,342	62	40	1,404	3,848	44	*	*
Bloemhof	T.	2,305	888	111	150	3,454	45	†	†
Malmesbury	C.	2,254	6	31	1,794	4,085	46	*	*
Volksrust	T.	2,218	911	102	86	3,317	47	*	*
Somerset East	C.	2,167	1,921	19	961	5,068	48	44	*
Middelburg	C.	2,103	860	20	1,397	4,380	49	*	*
Standerton	T.	2,100	1,509	171	219	3,999	50	*	*
Heidelberg	T.	2,086	1,149	103	72	3,410	51	*	*
Vryheid	N.	2,062	1,838	59	60	4,019	52	*	*
Newcastle	N.	2,057	1,625	512	64	4,258	53	43	*
Ladybrand	O.F.S.	2,050	1,389	5	220	3,664	54	*	*

* Below 2,000. † Not then constituted an urban area.

9. **Population of each District in the Union.**—The numbers of Europeans and non-Europeans in each district in the Union as returned at the Census of 1921, and the area in square miles of each district will be found in the District Statistical Summary. A table giving the population returns for each district at the Censuses of 1911 and 1921, and also the density of population in the rural portions of the districts in 1921, was included in the previous issue of this *Year Book*, but is not repeated owing to considerations of space.

10. **Distribution of Non-European Population.**—The subjoined table shows the distribution of the non-European population of the Union between urban and rural areas, according to the Censuses of 1911 and 1921 :—

DISTRIBUTION OF THE NON-EUROPEAN POPULATION OF THE UNION (CENSUSES), 1911 AND 1921.

Province.	Natives.				Asiatic and Mixed and Other Non-European.			
	1911.		1921.		1911.		1921.	
	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.
Cape.....	113,143	1,406,240	124,572	1,515,590	217,327	245,045	224,426	267,522
Natal.....	35,967	917,011	54,548	1,085,256	54,289	88,177	34,987	117,769
Transvaal.....	316,686	902,719	347,645	1,148,224	31,355	14,401	34,932	13,350
Orange Free State.....	42,346	282,937	60,235	361,743	8,469	18,675	6,832	11,461
UNION.....	508,142	3,508,907	587,000	4,110,813	311,440	366,298	301,177	410,102

11. **Ages of the People.**—The following tables give details in quinquennial age groups as to the number of (i) Europeans as returned at the Census of 1921 in comparison with the 1911 Census returns ; (ii) Asiatics and mixed and other non-European persons at the Census of 1921 ; and (iii) Natives (Bantu) grouped in four periods of life, viz., infancy, childhood, maturity, and old age. Urban and rural areas are distinguished.

(i) **NUMBER OF EUROPEANS, IN QUINQUENNIAL AGE GROUPS, IN THE UNION IN 1911 AND 1921, DISTINGUISHING URBAN AND RURAL AREAS.**

(Travellers, who in 1911 were included in rural areas, were allocated in 1921 to the area and district of their usual place of residence.)

Age. Groups.	Male.				Female.			
	1911.		1921.		1911.		1921.	
	U.	R.	U.	R.	U	R.	U.	R.
0– 4.....	42,272	51,960	45,875	50,512	41,161	50,179	43,993	48,272
5– 9.....	35,607	42,964	48,547	48,713	35,652	41,207	48,499	46,207
10–14.....	30,083	32,807	52,022	41,551	30,960	30,607	52,892	37,821
15–19.....	30,988	32,994	43,592	29,755	31,150	30,558	46,000	27,768
20–24.....	34,515	31,211	31,260	26,152	29,013	28,454	37,456	25,115
25–29.....	34,663	28,053	31,818	28,030	28,031	23,239	35,921	26,403
30–34.....	36,699	24,649	28,239	25,722	25,449	18,818	30,649	23,083
35–39.....	32,741	21,550	28,506	24,001	22,461	15,969	28,894	19,284
40–44.....	23,932	17,450	30,477	20,401	17,226	12,870	25,402	15,206
45–49.....	17,187	13,947	26,763	17,684	13,306	9,943	21,661	12,698
50–54.....	12,545	10,988	19,852	14,258	9,999	7,827	16,795	10,451
55–59.....	8,648	8,314	13,549	10,540	7,100	5,651	12,099	7,336
60–64.....	5,774	6,131	9,890	8,156	5,318	4,305	8,952	5,667
65–69.....	3,598	4,124	6,716	5,573	3,598	2,940	6,223	3,848
70–74.....	2,142	2,238	3,775	3,468	2,231	1,739	3,913	2,448
75–79.....	1,162	1,390	1,994	2,011	1,311	1,111	2,245	1,554
80–84.....	547	630	846	790	610	469	971	619
85 +.....	246	326	369	401	319	266	562	372
Unspecified.....	31	58	146	81	11	20	145	29
Under 21.....	—	—	196,106	174,936	—	—	198,422	164,634
21 +.....	—	—	228,130	182,863	—	—	224,850	149,547
TOTAL.....	353,380	331,784	424,236	357,799	304,906	286,172	423,272	314,181

(ii) NUMBER OF PERSONS OF THE ASIATIC AND MIXED AND OTHER NON-EUROPEAN RACES, IN QUINQUENNIAL AGE GROUPS, IN THE UNION IN 1921, DISTINGUISHING URBAN AND RURAL AREAS.

Age. Groups.	Male.				Female.			
	Asiatics.		Mixed and Other Non-European.		Asiatics.		Mixed and Other Non-European.	
	U.	R.	U.	R.	U.	R.	U.	R.
0– 4.....	3,265	9,451	16,594	22,414	3,389	9,565	16,477	22,565
5– 9.....	3,453	9,426	16,615	23,035	3,088	9,287	16,938	22,103
10–14.....	3,012	6,820	14,918	20,773	2,215	6,183	16,238	17,988
15–19.....	2,410	4,779	11,905	15,201	1,637	4,451	15,952	13,279
20–24.....	2,535	3,785	10,286	12,203	1,667	3,862	14,196	10,613
25–29.....	2,509	3,941	9,446	11,172	1,458	3,811	11,563	9,707
30–34.....	2,653	5,006	7,651	9,843	1,379	3,720	8,617	8,573
35–39.....	3,566	5,805	7,214	9,179	1,103	2,863	7,777	7,512
40–44.....	3,244	4,840	5,729	8,144	813	2,260	6,147	6,288
45–49.....	2,562	3,474	4,661	6,346	531	1,380	4,959	4,978
50–54.....	1,664	2,892	3,944	6,075	394	1,191	4,313	4,547
55–59.....	859	1,452	2,521	3,547	182	500	2,745	2,626
60–64.....	569	1,339	2,253	4,057	160	523	2,517	2,775
65–69.....	255	523	1,393	2,010	70	199	1,429	1,405
70–74.....	149	413	978	1,793	48	132	1,096	1,299
75–79.....	63	143	584	862	11	62	591	587
80–84.....	29	125	307	579	20	63	387	498
85 +.....	20	63	233	410	17	34	302	365
Unspecified.....	154	88	238	111	56	71	254	118
Under 21.....	12,781	31,758	62,431	85,075	10,812	31,098	69,154	79,145
21 +.....	20,190	32,607	55,039	72,679	7,426	19,059	63,344	58,681
TOTAL.....	32,971	64,365	117,470	157,754	18,238	50,157	132,498	137,826

(iii) NUMBER OF PERSONS OF BANTU RACE IN AGE GROUPS IN THE UNION AND IN EACH PROVINCE, CENSUS OF 1921.

Age Groups.	Union.			Cape.		Natal.		Transvaal.		O.F.S.	
	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
URBAN.											
Under 1..	6,457	6,992	13,449	2,593	2,847	267	297	2,208	2,346	1,389	1,502
1–14.....	44,447	43,082	87,529	17,301	18,026	3,588	1,986	15,257	13,827	8,301	9,243
15–50.....	374,969	87,792	462,761	40,201	34,514	41,161	5,675	273,487	31,982	20,120	15,621
Over 50..	10,628	8,864	19,492	4,360	4,399	989	414	3,456	1,960	1,823	2,091
Unspecified.....	3,206	563	3,769	201	130	149	22	2,775	347	81	64
TOTAL...	439,707	147,293	587,060	64,656	59,916	46,154	8,394	297,183	50,462	31,714	28,521
RURAL.											
Under 1..	105,593	118,660	224,253	36,774	40,129	26,942	30,478	35,057	40,506	6,820	7,547
1–14.....	828,726	802,459	1,631,185	316,545	304,932	198,009	196,591	235,654	226,565	78,518	74,371
15–50.....	864,034	1,023,268	1,887,302	295,104	390,757	245,051	281,198	241,377	268,430	82,502	82,883
Over 50..	143,048	223,022	366,070	56,695	74,247	34,693	72,011	37,427	62,187	14,323	14,577
Unspecified.....	1,289	714	2,003	263	234	176	107	748	273	102	100
TOTAL...	1,942,690	2,168,123	4,110,813	705,291	810,299	504,871	580,385	550,263	597,961	182,265	179,478

12. **Masculinity.**—The subjoined table gives particulars as to the masculinity (number of males to every 100 females) of the population of the Union and the various races in 1904, 1911, and 1921 (census years). Such information with regard to the European population as ascertained at the Census of 1918 is also given, persons absent from the Union on war service being in each case excluded.

MASCULINITY OF THE POPULATION OF THE UNION FROM THE EARLIEST CENSUS IN EACH CASE.

Year.	European.			Non-European.			All Races.		
	Urban.	Rural.	Union.	Urban.	Rural.	Union.	Urban.	Rural.	Union.
1904.....	144·1	119·5	131·9	—	—	101·8	—	—	107·6
1911.....	115·9	115·9	115·9	228·5	87·9	103·1	166·6	91·3	105·7
1918.....	99·5	112·3	105·2	—	—	—	—	—	—
1921.....	100·2	113·9	106·1	198·0	91·9	103·8	140·6	94·5	104·3

13. **Marital Condition of the People.**—The tables hereunder summarize the Census returns in respect of the conjugal condition of the population of the Union according to race and sex :—

(i) POPULATION OF EACH PROVINCE AT CENSUS OF 1921, CLASSIFIED ACCORDING TO MARITAL CONDITION.

Province.	Never Married.		Married.		Widowed.		Divorced.		Unspecified.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
EUROPEAN.										
Cape.....	207,938	189,032	113,437	112,604	7,151	18,706	766	834	102	39
Natal.....	41,792	36,006	26,683	25,637	1,687	4,342	292	333	23	43
Transvaal.....	175,021	145,575	102,623	99,423	5,493	12,878	1,145	1,152	106	69
O.F.S.....	61,598	52,568	34,320	34,103	1,697	3,959	126	139	35	11
UNION....	486,349	423,181	277,063	271,767	16,028	39,885	2,329	2,458	266	162
BANTU.										
Cape.....	533,880	500,708	217,775	275,540	16,694	89 397	899	4,215	699	355
Natal.....	380,467	333,950	162,191	203,990	7,626	50,282	323	355	418	202
Transvaal.....	556,525	364,879	271,435	218,858	10,712	62,670	720	1,504	8,054	512
O.F.S.....	142,874	124,469	66,891	69,241	3,647	13,244	381	939	186	106
UNION....	1,613,746	1,324,006	718,292	767,629	38,679	215,593	2,323	7,013	9,357	1,175
ASIATIC AND MIXED AND OTHER COLOURED.										
Cape.....	170,979	155,716	69,926	70,934	7,488	14,972	680	1,002	175	76
Natal.....	52,168	35,344	30,325	27,785	3,149	3,243	348	237	108	49
Transvaal.....	15,986	11,820	10,595	7,407	823	1,230	140	207	52	22
O.F.S.....	6,504	5,356	2,676	2,713	390	550	41	53	7	3
UNION....	245,637	208,236	113,522	108,839	11,850	19,995	1,209	1,499	342	150

(ii) MARITAL CONDITION OF THE POPULATION OF THE UNION (EXCLUDING BANTU), IN AGE GROUPS AT CENSUS OF 1921.

AGE.	NEVER MARRIED.		MARRIED.		WIDOWED.		DIVORCED.		UNSPECIFIED	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
EUROPEAN.										
0–14.....	287,208	277,661	12	22	—	1	—	—	—	—
15–19.....	73,199	69,806	127	3,898	13	42	2	11	6	11
20–44.....	111,282	66,604	158,639	189,626	3,483	9,544	1,049	1,546	153	93
45–59.....	11,050	6,455	85,560	61,402	5,081	12,451	896	697	59	35
60 and over....	3,487	2,575	32,642	16,746	7,447	17,828	378	204	35	21
Unspecified.....	123	80	83	73	4	19	4	—	13	2
Under 21.....	370,658	356,153	351	6,790	17	74	4	21	12	18
21 and over....	115,691	67,028	276,712	264,977	16,011	39,811	2,325	2,437	254	144
TOTAL.....	486,349	423,181	277,063	271,767	16,028	39,885	2,329	2,458	266	162
NON-EUROPEAN (EXCLUDING BANTU).										
0–14.....	149,482	145,178	249	765	23	61	1	16	21	16
15–19.....	33,444	30,097	771	5,030	45	122	12	59	23	11
20–44.....	53,758	29,497	70,396	77,348	3,821	6,087	631	924	145	73
45–59.....	6,061	2,139	29,762	19,674	3,769	6,167	358	344	47	22
60 and over....	2,600	1,080	12,149	5,849	4,175	7,497	202	150	24	14
Unspecified.....	292	245	195	173	17	61	5	6	82	14
Total.....	245,637	208,236	113,522	108,839	11,850	19,995	1,209	1,499	342	150

14. **Birthplaces of the People.**—The subjoined tables give comparisons (i) between the returns at the Censuses of 1904, 1911, and 1921 in respect of the birthplaces of the people; (ii) the principal birthplaces of the European population in 1921 compared with 1911; (iii) the numbers and proportions of Europeans born within and without the Union, Censuses 1904 to 1921; and (iv) the length of residence in the Union of persons born outside the Union, as returned at the Census of 1921, showing the period of arrival :—

(i) BIRTHPLACES OF ALL RACES OF THE POPULATION OF THE UNION, CENSUSES 1904, 1911, AND 1921.

Birthplaces.	1904.			1911.			1921.		
	Male.	Female.	Persons.	Male.	Female.	Persons.	Male.	Female.	Persons.
Africa.....	2,395,874	2,392,040	4,787,914	2,836,800	2,792,397	5,629,197	3,353,349	3,275,964	6,629,313
Europe.....	203,471	73,106	276,577	157,356	80,537	237,893	128,220	89,980	218,200
Asia.....	65,742	21,516	87,258	65,003	25,317	90,320	44,950	17,517	62,467
America.....	5,231	1,558	6,789	3,265	1,345	4,610	2,597	1,534	4,131
Australia and Polynesia...	10,109	4,552	14,661	6,129	4,074	10,203	4,624	3,770	8,394
At sea.....	163	118	281	277	189	466	402	301	703
Unknown and Unspecified.	1,645	699	2,344	562	143	705	2,856	2,522	5,372
TOTAL POPULATION	2,682,235	2,493,589	5,175,824	3,069,392	2,904,002	5,973,394	3,536,992	3,391,588	6,928,580

(ii) PRINCIPAL BIRTHPLACES (OUTSIDE THE UNION) OF THE EUROPEAN POPULATION, CENSUSES 1911 AND 1921.

Birthplaces.	1911.			1921.		
	Male.	Female.	Persons.	Male.	Female.	Persons.
United Kingdon	120,575	61,397	181,972	95,827	69,188	165,015
Russia	15,912	8,116	24,028	16,222	10,254	26,476
Germany	7,562	5,236	12,798	4,314	4,046	8,360
Australia	5,228	3,627	8,855	3,879	3,298	7,177
Netherlands	3,305	2,085	5,390	3,154	2,150	5,304
Rhodesia	372	368	740	925	1,023	1,948
Italy	1,480	362	1,842	1,198	451	1,649
United States of America	1,534	720	2,254	954	595	1,549
Greece	1,374	91	1,465	1,193	203	1,396
Norway	1,145	458	1,603	920	433	1,353
Poland	527	284	811	802	515	1,317
France	664	549	1,213	612	664	1,276
India	1,061	609	1,670	705	530	1,235
New Zealand	859	427	1,286	704	438	1,142
Sweden	933	281	1,214	728	277	1,005
Denmark	658	253	911	607	270	877
Canada	676	260	936	567	296	863
Basutoland	177	145	322	282	269	551
South West Africa	122	135	257	228	266	494
Swaziland	94	69	163	133	136	269

(iii) NUMBERS AND PROPORTIONS TO TOTAL POPULATION OF EUROPEANS BORN WITHIN AND OUTSIDE THE UNION, CENSUSES 1904 TO 1921.

Sex.	Born in the Union.				Born Outside the Union.			
	1904.*	1911.	1918.†	1921.	1904.*	1911.	1918.†	1921.
	NUMBERS.							
Male	384,935	513,054	593,595	640,139	193,424	169,806	134,537	141,896
Female	373,507	501,551	598,405	636,267	67,831	88,903	93,831	101,186
Persons	758,442	1,014,605	1,192,000	1,276,406	261,255	258,709	228,368	243,082
	PERCENTAGE OF TOTAL POPULATION.							
Male	66·56	75·04	81·44	81·86	33·44	24·78	18·46	18·14
Female	84·63	84·92	86·36	86·28	15·37	15·04	13·54	13·72
Persons	74·37	79·62	83·84	84·00	25·62	20·27	16·06	16·00

* Excluding Natal, for which separate figures for Europeans are not available.
† Exclusive of Males absent on War Service.

(iv) LENGTH OF RESIDENCE IN THE UNION OF EUROPEANS BORN OUTSIDE THE UNION, NUMBERS AND PROPORTIONS, CENSUS 1921.

Length of Residence.	Period of Arrival.	Number.			Proportion per 1,000.		
		Male.	Female.	Total.	Male.	Female.	Total.
Under 1 year	1920–21	8,957	6,859	15,816	63	68	65
1 year	1919–20	3,928	4,577	8,505	28	45	35
2 years	1918–19	1,575	1,918	3,493	11	19	14
3 years	1917–18	711	578	1,289	5	6	5
4 years	1916–17	810	1,036	1,846	6	10	8
Total under 5 years	1916–21	15,981	14,968	30,949	113	148	127
5–9 years	1911–16	11,424	12,661	24,085	80	125	99
10–14 years	1906–11	14,715	14,087	28,802	104	139	119
15–19 years	1901–06	28,019	23,628	51,647	197	233	212
20–24 years	1896–01	29,796	11,795	41,591	210	117	171
25–29 years	1891–96	15,412	6,859	22,271	109	68	92
30–34 years	1886–91	8,536	4,102	12,638	60	40	52
35–39 years	1881–86	3,874	2,850	6,724	27	28	28
40–44 years	1876–81	5,143	2,801	7,944	36	28	33
45–49 years	1871–76	1,730	827	2,557	12	8	10
50 years and over	Before 1871	2,514	2,181	4,695	18	22	19
Unspecified	—	4,752	4,427	9,179	34	44	38
TOTAL	—	141,896	101,186	243,082	1,000	1,000	1,000

15. **Nationality of the People.**—Table (i) gives the numbers and percentages of British born, British naturalized, and foreign subjects comprising the European population of the Union at the Census of 1921, distinguishing urban and rural areas. Table (ii) furnishes the numbers and percentages of British and foreign subjects of European race in each Province, detailing the principal countries of allegiance of the latter :—

(i) **NUMBERS AND PERCENTAGES OF BRITISH AND FOREIGN SUBJECTS OF EUROPEAN RACE IN URBAN AND RURAL AREAS, CENSUS 1921.**

Nationality.	Urban.			Rural.			Total.		
	Male.	Female.	Persons.	Male.	Female.	Persons	Male.	Female.	Persons.
				NUMBERS.					
British.....	396,709	404,573	801,282	351,370	310,949	662,319	748,079	715,522	1,463,601
British Naturalized.....	15,978	10,258	26,236	3,315	1,349	4,664	19,293	11,607	30,900
TOTAL—									
BRITISH.....	412,687	414,831	827,518	354,685	312,298	666,983	767,372	727,129	1,494,501
FOREIGN SUBJECTS.....	11,549	8,441	19,990	3,114	1,883	4,997	14,663	10,324	24,987
				PERCENTAGES.					
British.....	93·51	95·58	94·55	98·20	98·97	98·56	95·66	97·03	96·32
British Naturalized.....	3·77	2·43	3·09	·93	·43	·70	2·47	1·57	2·03
TOTAL—									
BRITISH.....	97·28	98·01	97·64	99·13	99·40	99·26	98·13	98·60	98·35
FOREIGN SUBJECTS.....	2·72	1·99	2·36	·87	·60	·74	1·87	1·40	1·65

(ii) **NUMBERS AND PERCENTAGES OF BRITISH AND FOREIGN SUBJECTS OF EUROPEAN RACE IN EACH PROVINCE, CENSUS 1921.**

Nationality.	Cape.		Natal.		Transvaal.		O.F.S.		Union.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
British.....	632,555	97·22	131,652	96·21	514,561	94·68	184,777	98·00	1,463,601	96·32
British Naturalized	10,342	1·59	1,913	1·40	16,101	2·96	2,570	1·36	30,900	2·03
TOTAL BRITISH	642,897	98·81	133,565	97·61	530,662	97·64	187,347	99·36	1,494,501	98·35
American.....	567	·09	262	·19	974	·18	110	·06	1,899	·13
Dutch (Netherlands)	741	·12	171	·12	1,402	·26	194	·10	2,505	·16
French.....	290	·04	466	·34	441	·08	34	·02	1,231	·08
German.....	1,949	·30	715	·52	1,329	·24	261	·11	4,194	·28
Greek.....	348	·05	48	·03	835	·15	61	·03	1,291	·09
Italian.....	457	·07	208	·15	818	·15	15	·01	1,497	·10
Russian.....	1,819	·28	265	·20	4,164	·77	463	·24	6,705	·44
Scandinavian.....	540	·08	788	·58	586	·11	51	·03	1,960	·13
Other.....	1,001	·16	350	·26	2,274	·42	80	·04	3,705	·24
TOTAL FOREIGN	7,712	1·19	3,273	2·39	12,823	2·36	1,209	·64	24,987	1·65

16. **Religions of the People.**—The following table gives particulars of the European and non-European population of the Union classified as to their religion and showing the numbers and proportions per cent. to total population at the Censuses of 1911 and 1921.

RELIGIONS OF THE EUROPEAN AND NON-EUROPEAN POPULATION OF THE UNION AND PROPORTIONS PER CENT. TO TOTAL POPULATION, CENSUSES 1911 AND 1921.

Religion.	Census, 1911.				Census, 1921.			
	European.		Non-European.		European.		Non-European.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Dutch Churches	693,898	54·37	204,762	4·36	838,982	55·21	276,486	5·11
Anglican Churches	255,640	20·03	276,849	5·89	294,026	19·35	420,059	7·77
Presbyterian	58,633	4·59	72,114	1·54	74,999	4·94	115,897	2·14
Congregational	13,402	1·05	175,254	3·73	10,598	·70	145,723	2·70
Methodist	82,104	6·43	517,525	11·02	102,771	6·76	730,022	13·50
Lutheran	23,707	1·85	195,308	4·16	19,098	1·26	241,807	4·47
Church of Rome	53,793	4·22	37,242	·79	61,246	4·03	82,008	1·52
Greek Church	1,926	·15	17	*	2,091	·14	195	—
Baptist	15,088	1·18	11,205	·24	15,414	1·02	23,944	·44
Christian Scientist	747	·06	25	*	2,326	·15	179	*
Plymouth Brethren	1,524	·12	239	*	1,644	·11	375	*
Salvation Army	2,263	·18	2,041	·05	1,905	·13	2,209	·04
Seventh Day Adventist	1,131	·09	424	·01	2,120	·14	†15,460	·29
Protestant	6,816	·54	4,358	·09	2,799	·18	1,022	·02
Various Christian Sects	5,593	·44	17,161	·37	15,189	1·00	57,186	1·06
Hebrew	46,919	3·68	7	*	62,103	4·09	335	*
Buddhist	42	*	394	*	25	*	12,525	·23
Confucian	3	*	1,389	·03	4	*	1,602	·03
Hindu	—	—	115,701	2·46	22	*	109,261	2·02
Mahommedan	62	*	45,842	·98	102	*	49,936	·92
Parsi	—	—	344	*	12	*	876	·02
‡No Religion	2,221	·17	3,012,648	64·14	3,203	·21	2,402,652	44·42
Unknown (or not stated)	8,101	·64	4,136	·09	5,575	·37	677,294	12·52
Others and Indefinite	2,629	·21	2,227	·05	3,234	·21	42,039	·78
TOTAL POPULATION	1,276,242	100·00	4,697,152	100·00	1,519,488	100·00	5,409,092	100·00

* Indicates that the percentage is so small that it has no significance. † Zionist, Israelite, etc.
‡ Indicates for Europeans "No Religion" (so returned), and for non-Europeans covers Bantu Religions, and non-Christian Hottentots and Bushmen.

17. **Official Languages Spoken.**—The Census of 1918 was the first occasion on which information was collected in regard to the number of Europeans speaking either or both of the official languages of the country. Similar particulars were obtained at the 1921 Census, and the following table summarizes the results in comparative form.

In both urban and rural areas a marked increase occurred during the three years in the number of people returning themselves as bilingual, the percentage increase being 46·70 in the urban areas and 11·87 in the rural areas. Of the whole population of the Union aged seven years and over 50·71 per cent. are bilingual, while 25·16 per cent. and 23·79 per cent. speak only English and Dutch respectively.

OFFICIAL LANGUAGES SPOKEN, CENSUSES 1918 AND 1921.

(Europeans only.)

Language Spoken.	1918.				1921.			
	Male.	Female.	Total.		Male.	Female.	Total.	
			Number.	Per cent.			Number.	Per. cent.
Children under school age.								
Both	32,425	30,818	63,243	23·67	35,101	34,381	69,482	26·25
English	37,195	36,850	74,045	27·72	33,798	32,619	66,417	25·09
Dutch	66,515	63,341	129,856	48·61	66,278	62,501	128,779	48·66
TOTAL (under 7 years)	136,135	131,009	267,144	100·00	135,177	129,501	264,678	100·00
Seven years and over—								
Both	253,501	232,209	485,710	42·07	336,644	299,620	636,264	50·71
English	173,926	176,268	350,194	30·33	156,012	159,721	315,733	25·16
Dutch	158,007	149,032	307,039	26·59	152,217	146,358	298,575	23·79
Neither	3,091	2,616	5,707	0·49	1,410	1,601	3,011	0·24
Unspecified	4,206	1,781	5,987	0·52	575	652	1,227	0·10
TOTAL	592,731	561,906	1,154,637	100·00	646,858	607,952	1,254,810	100·00
GRAND TOTAL	728,866	692,915	1,421,781	—	782,035	737,453	1,519,488	—

18. **Occupations of the People.**—At the Census of 1921 the system of classification of occupations was different from that followed at previous censuses. This is particularly the case in connection with commercial and industrial occupations which in 1921 were separately distinguished, whereas previously makers of and dealers in various commodities were classed together. As the significance of the data cannot be altogether appreciated without a considerable amount of explanatory matter, it has been considered advisable not to attempt a summary of these statistics of occupation in this *Year Book*. The full figures, accompanied by a comprehensive analysis, are published in the Report on the 1921 Census, to which reference should be made.

§ 3. Asiatic Population.

1. **Asiatics in the Union.**—The number of Asiatics in the Union as shown in the Censuses of 1904, 1911, and 1921 is given in the following table :—

ASIATIC POPULATION OF THE PROVINCES AND UNION—CENSUS YEARS 1904, 1911, AND 1921.

YEAR.	CAPE OF GOOD HOPE.		NATAL.		TRANSVAAL.		ORANGE FREE STATE.		UNION.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1904.....	9,316	926	63,497	37,421	9,799	1,522	197	56	82,809	39,925	122,734
1911.....	6,581	1,083	80,477	52,943	8,990	2,022	87	20	96,135	56,068	152,203
1921.....	5,724	1,972	80,314	61,335	11,056	4,935	242	153	97,336	68,395	165,731

2. **Indian Population of the Union.**—(i) *Number of Indians.*—At the request of the Government of India special returns have been made in respect of the Indian population of the Union, a summary of which is given in the table hereunder.

NUMBER OF INDIANS IN THE UNION AND PROVINCES, CENSUSES 1911 AND 1921, CLASSIFIED ACCORDING TO BIRTHPLACES.

Birthplace.	Cape.		Natal.		Transvaal.		Orange Free State.		Union.	
	1911.	1921.	1911.	1921.	1911.	1921.	1911.	1921.	1911.	1921.
Union of South Africa.....	1,381	2,630	59,277	93,767	3,065	5,853	53	73	63,776	102,323
Assam.....	5	56	20	3	6	—	—	—	31	59
Bengal.....	193	254	15,468	5,782	501	87	3	—	16,165	6,123
Bombay.....	2,819	1,301	4,588	2,790	3,474	2,401	2	1	10,883	6,493
Burma.....	7	25	12	21	14	4	—	—	33	50
Central Province and Berar.....	8	2	26	95	15	7	—	—	49	104
Eastern Bengal....	3	2	—	102	—	1	—	—	3	105
Madras.....	619	199	39,295	18,148	1,392	441	8	2	41,314	18,790
Punjab.....	123	58	95	100	121	28	3	—	342	186
United Province of Agra and Oudh.	32	9	225	674	8	27	—	—	265	710
Other Provinces*..	974	1,627	13,592	19,036	1,323	4,301	32	13	15,921	24,977
Other Countries and Unspecified.....	442	335	433	818	129	255	5	11	1,009	1,419
TOTAL.....	6,606	6,498	133,031	141,336	10,048	13,405	106	100	149,791	161,339

* Including "India"—so returned.

(ii) *Occupations of Indians.*—It is not possible to publish comparable figures in respect of occupations at the Censuses of 1911 and 1921 owing to a different classification being adopted at the latter Census. Moreover, in 1911 the tabulation included the whole Indian community, whereas in 1921 tabulation was confined to persons of fifteen years of age and over. The

following table gives the numbers of the Indian population of the Union of fifteen years of age and over classified according to their occupation as returned at the Census of 1921 :—

OCCUPATIONS OF THE INDIAN POPULATION OF THE UNION, CENSUS 1921.

Occupation.	Cape.		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Fishing	9	—	131	2	—	—	—	—	140	2
Agricultural	68	—	18,903	1,766	284	7	6	—	19,261	1,773
Industrial	359	13	6,326	134	518	8	3	—	7,206	155
Transport and Communication	471	—	2,918	21	58	—	1	—	3,448	21
Commercial	2,273	64	5,304	406	4,269	55	3	—	11,849	525
Public Administration and Defence	13	—	261	—	9	—	—	—	283	—
Professional	24	—	364	72	57	—	—	—	445	72
Non-Productive	732	806	7,099	27,889	1,458	2,003	29	11	9,318	30,709
Indefinite	67	10	7,486	613	120	4	—	—	7,673	627

3. **Asiatics in the Union.**—Previous issues of this *Year Book* have contained particulars of the Asiatic population in each Province. Considerations of space have necessitated the omission of these paragraphs. The question is dealt with in some detail in the Report on the Census of 1921.

Under the Union *Immigrants Act,* 1913 (which is applicable to all classes and races), Asiatics, with the exception of wives and children of domiciled relatives, are prohibited from entering the Union, not *eo nomine,* but under a certificate of the Minister issued in terms of section 4 (1) (*a*). The provisions of the Act also restrict the movement of Asiatics to the Province in which they are resident.

The *Class Areas Bill,* which was introduced by the Government during the 1924 Parliamentary session, aimed at making provision for the reservation of residential and trading areas in urban areas for persons, other than natives, having racial characteristics in common, and was designed primarily to give the Government powers to enforce a measure of segregation of Asiatics in particular urban areas. The Bill met with a hostile reception from the Asiatic community. Owing to the dissolution of the House of Assembly in May, 1924, the Bill did not pass beyond the preliminary stages.

Dr. Malan, the new Minister of the Interior, introduced a recast Class Areas Bill, which was referred to a Select Committee, in the 1926 Session. A deputation from the Government of India, which visited the Union to study the conditions under which Indians were living, gave evidence before the Select Committee. As a result of the Committee's report, it was decided to postpone consideration of the Bill, and to discuss the whole question at a conference with the Government of India during the recess.

The Asiatic question in the Union has an Imperial context to which brief reference may here be made. The Imperial Conference of 1917 accepted the principle of reciprocity of treatment between India and the British Dominions in the matter of immigration. The Conference of 1918 elaborated the principle, and laid down that Indians already permanently domiciled in the other British countries should be allowed on certain conditions to bring in their wives and minor children. At the Imperial Conference held in 1921 the position of Indians in the British Empire was further discussed, and a Resolution was passed which, while approving the Resolution of the 1918 Conference on the subject, expressed the opinion that in the interests of the solidarity of the British Commonwealth it was desirable that the rights of British Indians to citizenship should be recognized. This Resolution was not accepted by the South African representatives, and the Indian delegates expressed the hope that by negotiation between the Governments of India and the Union the objections of the latter could be overcome. The question was again raised at the Conference of 1923, when the Indian representatives made certain proposals with a view to giving effect to the policy laid down in 1921. In the case of the Union, the suggestion was that the Union Government should agree to the Government of India sending an agent to South Africa who would protect Indian nationals there and act as an intermediary between them and the Union authorities. In rejecting the proposal, General Smuts on behalf of the Union stated that he could hold out no hope of any further extension of the political rights of Indians in South Africa. He defined the issue in the Union to be the question of economic competition, and not of race or colour, and declared that the white community in South Africa felt that the whole question of the continuance of western civilization in that country was involved in this issue.

Fuller information in regard to the Asiatic problem in the Union was published in previous issues of the *Year Book* (Nos. 1 to 4).

4. **Asiatic Inquiry Commission.**—A summary of the reports (dated May,1920, and March, 1921, respectively) of the Asiatic Inquiry Commission appointed in February, 1920, was given in the fourth and fifth issues of this *Year Book*. The Commission inquired primarily into the legal position arising from and affecting the acquisition of land by Asiatics for trading purposes and their trading activities generally.

§ 4. Immigration and Emigration.

1. **Immigration into South Africa.**—As one of the newer countries of the world, South Africa, since the days of the earliest settlements has received a more or less steady influx of immigrants, the volume of which was abnormally increased or decreased at certain periods by important events such as the discovery of diamonds and gold, and the period and aftermath of the South African War of 1899–1902, and the European War (1914–18). The records of the numbers in earlier years are not complete, and it was not until the year 1903, when the first *Immigration Act* was brought into operation in the Cape Colony, that accurate records began to be kept. The value of these figures as an index to the accession of population is discounted by the absence of corresponding figures for Natal and also of records of the departures from South Africa.

The year immediately following the South African war recorded a very large accession of population; but for several years following there was a reaction due to a severe commercial depression and there was undoubtedly a considerable loss of European population. A change in the direction of flow again occurred in the year 1910, when the country once more received an accession of population from oversea. The period of the European war was marked by a considerable diminution in the flow of immigration. There was a revival after the cessation of hostilities in 1918, and in the two or three succeeding years, there was a fairly large influx of immigrants. The movement was, however, checked as a result of the economic depression which commenced towards the beginning of 1921.

It was not until the passing of the *Immigrants Act*, 1913, that legislation and statistics of arrivals from abroad became uniform in the two coastal Provinces. This Act, however, gave no authority for recording or in any way dealing with departures from the country.

2. **Statistics of Migration.**—(a) *Prior to* 1918.—The Union is bounded on the east, west, and south by oceans, but it has also extensive land borders of many thousands of miles, and it was not until the latter part of 1914 that figures were recorded in respect of the movement of population other than by sea, and then only *via* Mafeking to and from Rhodesia by railway. The following year this was extended to the railway border station of Komatipoort on the Union-Portuguese East Africa border.

(b) *Returns under the Statistics Act.*—From the 1st January, 1918, statutory powers were given to the Director of Census to collect information in regard to all persons entering or leaving the Union *via* the sea and land borders. The method of collecting the statistical data is to enumerate all travellers by means of a special statistical form. In the case of seaports the Immigration Officers are responsible for the enumeration, while travellers *via* the land borders are enumerated either by specially appointed railway officers or by the police stationed at or near drifts and other places of entry or exit. During the first four months of the year 1918, every person crossing the border by rail was enumerated, but owing to the heavy traffic and consequent delay and inconvenience, it was decided by the Statistical Council that as from the 1st May only those persons who were travelling with single journey tickets should be enumerated. The figures for the year 1918 were somewhat affected by this change of procedure.

The regulations framed under the Act exclude the enumeration of aboriginal natives of the Bantu race. Therefore, statistics only account for Europeans, Asiatics, and coloured persons of mixed race.

(c) *Revised Scheme of Collection*, 1924.—Changing conditions and the experience gained during the past few years revealed certain limitations in the system, and after careful consideration the method of collection was revised, so that from the 1st January, 1924, the figures were subjected to greater analysis and additional particulars became available. The most important feature of the revised method is the isolation and the separate tabulation in the statistics of the large number of persons "in transit" *via* the Union. The peculiar geographical situation and the development of the ports and railways of the Union have placed the country in a favourable position in this respect, and there is now a considerable amount of traffic *via* Union ports and railways of persons passing to and from Rhodesia, Belgian Congo, South West Africa and the Portuguese Province of Mozambique.

At coastal ports there is also a certain amount of transhipment for East African ports, India, Australia, etc. It is now possible to deal separately with this class of migrant and also to ascertain the number of persons on holiday or business visits to and from the Union. Another feature of the new method is the abolition of the statistical form for persons arriving by sea. All statistical particulars in respect of these immigrants are ascertained from the Passengers' Declaration Form (D.I. 10) required in terms of the *Immigration Act*, 1913, to be completed in respect of all passengers landing in the Union from overseas. This form is also required in respect of all entrants into the Union *via* the Portuguese port of Lourenco Marques.

The tables in this section have been entirely recast in accordance with the more detailed information now available.

The following series of tables (i) to (iv) give a summary of the Union statistics of immigration from 1920. The figures for previous years will be found in earlier editions of this *Year Book* (Nos. 1 to 7) to which reference may be made. In certain tables, the latest available figures have been inserted at the time of preparation for publication.

(i) SUMMARY OF ALL ARRIVALS INTO AND DEPARTURES FROM THE UNION, 1920 TO 1925. (EXCLUDING "IN TRANSIT.")

Year.	European.			Non-European.			All Races.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
				(*a*) ARRIVALS.					
1920.....	20,022	17,827	37,849	2,034	436	2,470	22,056	18,263	40,319
1921.....	18,699	17,564	36,263	2,263	553	2,816	20,962	18,117	39,079
1922.....	13,956	13,262	27,218	2,131	460	2,591	16,087	13,722	29,809
1923.....	12,013	11,938	23,951	2,087	406	2,493	14,100	12,344	26,444
1924..... ..	14,609	14,081	28,690	2,781	463	3,244	17,390	14,544	31,934
1925.....	14,179	13,462	27,641	2,678	425	3,103	16,857	13,887	30,744
				(*b*) DEPARTURES.					
1920.....	13,073	11,609	24,682	3,766	1,066	4,832	16,839	12,675	29,514
1921.....	12,792	11,286	24,078	4,747	1,691	6,438	17,539	12,977	30,516
1922.....	12,703	11,616	24,319	4,367	1,408	5,775	17,070	13,024	30,094
1923.....	11,734	10,997	22,731	4,446	1,601	6,047	16,180	12,598	28,778
1924.....	13,815	13,059	26,874	3,383	906	4,289	17,198	13,965	31,163
1925.....	13,225	12,847	26,072	3,518	1,065	4,583	16,743	13,912	30,655

Tables Nos. (ii) and (iii) record the arrivals and departures *via* seaports from the year 1920. The figures for new arrivals prior to 1st January, 1924, included business and holiday visitors; but subsequent to that date the figures represent the number of new arrivals who indicated their intention to settle in the Union. Similarly, the permanent departures now record only domiciled South Africans who leave the Union with the intention of not returning.

(ii) NUMBER OF PERSONS ARRIVED BY SEA, 1920 TO 1925. (ALL RACES.)

YEAR.	Total Persons Allowed Entry.	Old Residents Returning.	NEW ARRIVALS.*			Number Refused Entry.
			Total.	Male.	Female.	
1920.....	43,719	21,624	22,095	11,795	10,300	137
1921.....	42,926	21,993	20,933	10,911	10,022	363
1922.....	32,518	19,283	13,235	6,890	6,345	355
1923.....	29,498	17,857	11,641	6,161	5,480	492
1924.....	34,430	18,021	5,606	2,915	2,691	383
1925.....	28,091	†17,612	5,760	3,253	2,507	—

* From 1st January, 1924, the figures record new arrivals assuming domicile only.
† Includes old residents returning *via* land borders.

(iii) NUMBER OF PERSONS EMBARKED AT PORTS OF THE UNION, 1920 TO 1925 (ALL RACES).

YEAR.	Total Embarked.	Residents Leaving Temporarily.	PERMANENT DEPARTURES.*		
			Total.	Male.	Female.
1920	29,945	20,099	9,849	5,568	4,281
1921	33,618	20,142	13,476	7,771	5,705
1922	32,429	19,754	12,675	7,309	5,366
1923	31,776	19,110	12,666	7,239	5,427
1924	32,305	18,860	5,648	3,180	2,468
1925	27,373	†18,758	4,888	2,773	2,115

* From 1st January, 1924, the figures record only domiciled South Africans relinquishing domicile.
† Includes residents leaving temporarily *via* land borders.

Table (iv) records the number of persons travelling by rail on single journey tickets via the land borders. The figures exclude the " in transit " traffic through the Union.

(iv) ARRIVALS AND DEPARTURES BY RAIL, 1920 TO 1925. (EXCLUDING " IN TRANSIT.")

YEAR.	EUROPEANS.			ASIATICS AND OTHERS.			Total.
	Mafeking.	Komati-poort.	Nakop.	Mafeking.	Komati-poort.	Nakop.	
ARRIVALS.							
1920	659	1,951	568	18	980	18	4 194
1921	945	1,812	672	29	928	105	4,491
1922	1,066	1,069	590	17	657	16	3,415
1923	1,492	499	735	22	693	4	3,445
1924	1,380	254	560	35	983	10	3,222
1925	1,093	215	400	7	932	6	2,653
DEPARTURES.							
1920	1,193	1,830	1,448	39	613	11	5,134
1921	1,065	1,344	951	26	412	53	3,851
1922	1,391	970	555	16	283	25	3,240
1923	2,007	768	629	35	303	24	3,766
1924	2,310	583	869	16	541	4	4,323
1925	1,524	512	691	11	531	13	3,282

The following table (v) shows the number of persons enumerated, and not the number of persons who entered or left the Union. The difference is accounted for by the method of enumeration at Mafeking, Komatipoort, and Nakop, the three railway border stations, where persons entering or leaving the Union with *single journey railway tickets only* are counted.

Under the new method of enumeration, all persons are asked to state the exact reason for entering or leaving the Union. The movement of all persons, including those in transit, is shown below according to race, and in detail for Europeans, giving the reasons in tables (i) and (ii) of paragraph 3.

(v) ARRIVALS AND DEPARTURES BY SEA AND RAIL, 1924.

Port of Entry or Exit.	Europeans.		Asiatics.		Others.		All Races.		Total.
	M.	F.	M.	F	M.	F.	M.	F.	
ARRIVALS.									
(*a*) Residents and Visitors—									
Via Sea—									
Cape Town	9,341	9,282	4	3	16	16	9,361	9,301	18,662
Durban	3,428	3,184	1,777	308	58	29	5,263	3,521	8,784
Other Ports	947	996	—	—	4	1	951	997	1,948
Via Land—									
Mafeking	445	320	7	—	22	6	474	326	800
Komatipoort	137	79	880	99	3	1	1,020	179	1,199
Nakop	311	220	3	—	7	—	321	220	541
Total via Sea and Land	14,609	14,081	2,671	410	110	53	17,390	14,544	31,934
(*b*) Passengers "In Transit"	3,409	2,218	24	6	49	12	3,482	2,236	5,718
TOTAL	18,018	16,299	2,695	416	159	65	20,872	16,780	37,652
DEPARTURES.									
(*a*) Residents and Visitors—									
Via Sea—									
Cape Town	7,788	7,353	15	6	20	7	7,823	7,366	15,189
Durban	3,743	3,739	2,763	767	81	43	6,587	4,549	11,136
Other Ports	799	878	25	4	4	3	828	885	1,713
Via Land—									
Mafeking	714	528	3	—	5	6	722	534	1,256
Komatipoort	288	206	458	66	7	2	753	274	1,027
Nakop	483	355	—	—	2	2	485	357	842
Total via Sea and Land	13,815	13,059	3,264	843	119	63	17,198	13,965	31,163
(*b*) Passengers "In Transit"	3,261	2,107	25	9	55	8	3,341	2,124	5,465
TOTAL	17,076	15,166	3,289	852	174	71	20,539	16,089	36,628

3. **Migration of Europeans.**—Tables (i) and (ii) show the reasons given by all European migrants for entering or leaving the Union. The column headed "In transit through the Union" shows the number of persons enumerated who pass through the Union to and from countries or territories beyond its borders. These figures are excluded from the detailed tables for the Union.

This analysis eliminates the purely temporary visitors and South African holiday-makers from the figures, and shows the actual accessions to and losses from the domiciled population.

(i) SUMMARY OF ARRIVALS DURING YEAR 1924, SPECIFYING PORT AND REASON FOR ENTRY. EUROPEANS ONLY.

PORT OF ENTRY.	VISITORS ARRIVING.		Immigrants Intending Permanent Residence.	South African Residents Returning.	Total Arrivals.	In Transit Through Union.
	Business.	Holiday.				
ARRIVALS.—(a) MALES.						
Cape Town	571	1,269	1,779	5,722	9,341	2,389
Durban	223	718	651	1,836	3,428	569
Port Elizabeth	21	57	117	395	590	19
East London	12	38	75	232	357	9
Total via Sea	827	2,082	2,622	8,185	13,716	2,986
Mafeking	75	81	26	263	445	383
Komatipoort	3	27	25	82	137	25
Nakop	35	36	19	221	311	15
Total via Land	113	144	70	566	893	423
TOTAL	940	2,226	2,692	8,751	14,609	3,409
(b) FEMALES.						
Cape Town	113	1,649	1,723	5,797	9,282	1,596
Durban	32	862	615	1,675	3,184	333
Port Elizabeth	4	98	113	385	600	18
East London	2	68	76	250	396	12
Total via Sea	151	2,677	2,527	8,107	13,462	1,959
Mafeking	10	120	18	172	320	232
Komatipoort	—	31	11	37	79	13
Nakop	5	36	17	162	220	14
Total via Land	15	187	46	371	619	259
TOTAL	166	2,864	2,573	8,478	14,081	2,218
(c) TOTAL.						
Cape Town	684	2,918	3,502	11,519	18,623	3,985
Durban	255	1,580	1,266	3,511	6,612	902
Port Elizabeth	25	155	230	780	1,190	37
East London	14	106	151	482	753	21
Total via Sea	978	4,759	5,149	16,292	27,178	4,945
Mafeking	85	201	44	435	765	615
Komatipoort	3	58	36	119	216	38
Nakop	40	72	36	383	531	29
Total via Land	128	331	116	937	1,512	682
TOTAL	1,106	5,090	5,265	17,229	28,690	5,627

(ii) SUMMARY OF DEPARTURES DURING YEAR 1924, SPECIFYING PORT AND REASON FOR DEPARTURE. EUROPEANS ONLY.

PORT OF EXIT.	VISITORS DEPARTING.		South Africans Relinquishing Domicile.	South Africans Departing Temporarily.	Total Departures	In Transit Through Union.
	Business.	Holiday.				
DEPARTURES.—(*a*) MALES.						
Cape Town	485	670	1,606	5,027	7,788	1,800
Durban	234	435	597	2,477	3,743	628
Port Elizabeth	44	36	75	360	515	16
East London	11	13	43	217	284	9
Total via Sea	774	1,154	2,321	8,081	12,330	2,453
Mafeking	53	128	357	176	714	722
Komatipoort	14	21	111	142	288	69
Nakop	27	15	358	83	483	17
Total via Land	94	164	826	401	1,485	808
TOTAL	868	1,318	3,147	8,482	13 815	3,261
(*b*) FEMALES.						
Cape Town	108	805	1,351	5,089	7,353	1,275
Durban	25	545	600	2,569	3,739	441
Port Elizabeth	14	52	82	367	515	9
East London	3	23	65	272	363	2
Total via Sea	150	1,425	2,098	8,297	11,970	1,727
Mafeking	23	129	254	122	528	346
Komatipoort	5	27	59	115	206	20
Nakop	2	16	299	38	355	14
Total via Land	30	172	612	275	1,089	380
TOTAL	180	1,597	2,710	8,572	13,059	2,107
(*c*) TOTAL.						
Cape Town	593	1,475	2,957	10,116	15,141	3 075
Durban	259	980	1,197	5,046	7,482	1,069
Port Elizabeth	58	88	157	727	1,030	25
East London	14	36	108	489	647	11
Total via Sea	924	2,579	4,419	16,378	24,300	4,180
Mafeking	76	257	611	298	1,242	1,068
Komatipoort	19	48	170	257	494	89
Nakop	29	31	657	121	838	31
Total via Land	124	336	1,438	676	2,574	1,188
TOTAL	1,048	2,915	5,857	17,054	26,874	5,368

The following table (iii) shows the nationality of all Europeans who entered the Union during the year 1924. The column showing the number and nationality of South Africans returning to the Union after a temporary absence has been omitted from the table for convenience. The majority of the latter were either British or British naturalized subjects. In the previous issue of this *Year Book* a table was given showing the nationality of all new arrivals, whether settlers or visitors, for a series of years. As the figures are not comparable with those for 1924, the table has been omitted. The following table has been arranged to give a geographical grouping of nationalities.

(iii) NATIONALITY OF ARRIVALS DURING 1924.—EUROPEANS. (EXCLUDING "IN TRANSIT.")

NATIONALITY.	MALE.				FEMALE.			
	Visitors to Union.		Immigrants Intending Permanent Residence.	All Arrivals.	Visitors to Union.		Immigrants Intending Permanent Residence.	All Arrivals.
	Business.	Holiday.			Business.	Holiday.		
British	724	2,024	1,822	12,287	153	2,625	1,842	12,562
British Naturalized	15	27	28	510	—	13	32	254
American—South.	2	1	2	5	—	4	4	8
American—U.S.A.	66	59	39	208	6	72	37	149
Dane	1	1	12	30	—	1	7	9
Norwegian	2	2	58	171	—	—	3	15
Swede	6	3	7	30	—	11	10	30
Netherlander	18	34	67	187	—	29	69	162
Belgian	9	8	7	27	—	6	4	12
German	32	36	156	346	2	58	170	347
Swiss	6	2	13	22	—	6	14	28
French	20	6	6	48	4	16	11	44
Finn	1	—	3	4	—	—	2	2
Czecho-Slav	1	—	5	6	—	1	—	2
Jugo-Slav	—	2	8	15	—	—	2	4
Austrian	1	—	5	7	—	—	2	4
Hungarian	2	—	—	2	—	1	1	2
Russian	7	1	43	80	—	7	43	63
Pole	1	—	36	51	—	—	33	38
Lithuanian	6	3	283	336	—	—	209	216
Lett	2	1	30	38	—	1	30	34
Roumanian	—	—	1	1	—	—	—	2
Slav (so returned)	—	1	—	1	—	1	—	1
Turk	1	—	5	7	—	—	4	5
Spanish	2	—	—	2	—	—	—	1
Portuguese	2	9	9	60	—	10	9	25
Italian	9	4	14	62	1	1	18	40
Greek	4	2	31	64	—	1	16	20
Hebrew (so returned)	—	—	2	2	—	—	1	1
Syrian	—	—	—	—	—	—	—	1
TOTAL	940	2,226	2,692	14,609	166	2,864	2,573	14,081

NOTE.—The total "All Arrivals" includes South Africans returning after temporary absence not separately shown.

Table (iv) shows the movement of male immigrants and emigrants according to usual occupation and country of previous abode or of destination. Comparison with previous years is not possible owing to the adoption of a different occupation classification and also the elimination of visitors from the new arrivals.

(iv) MOVEMENT OF THE POPULATION BY COUNTRY AND OCCUPATION. EUROPEAN MALES, 1924.

Country of (*a*) Previous Abode. (*b*) Destination.	Primary Producers.		Industrial.	Transport and Communication.	Commercial.	Professional.	Personal Service.	Independent	Other and Unspecified.	Dependents.	Total.
	Fishing and Agriculture.	Mining.									
(*a*) IMMIGRANTS INTENDING PERMANENT RESIDENCE.											
South West Africa	2	—	1	1	—	2	—	—	1	12	19
Mauritius	—	—	—	1	—	—	—	—	—	2	3
Nyasaland Protectorate	—	—	1	—	—	—	—	—	—	1	2
Rhodesia	3	—	1	1	5	2	—	1	1	10	24
Kenya	2	—	—	—	—	—	—	1	—	8	11
Other British African Possessions	2	—	—	12	1	10	—	—	1	2	28
Madeira	1	—	1	—	—	—	—	—	—	2	4
Portuguese East Africa	1	—	2	1	4	—	—	—	—	4	12
Other Portuguese Possessions	1	—	—	—	—	—	—	—	—	2	3
Other Foreign African and Unspecified	2	—	1	—	1	—	1	—	3	2	10
United Kingdom	268	27	465	72	297	205	41	38	73	399	1,885
Denmark	—	—	2	—	5	—	—	—	—	1	8
France	1	—	7	—	1	1	—	—	—	—	10
Germany	26	—	31	1	32	45	3	—	1	23	162
Holland	24	—	8	—	14	2	—	—	1	10	59
Lithuania	4	—	5	—	42	3	1	—	18	28	101
Norway	47	—	2	4	—	1	—	—	1	—	55
Russia	2	—	3	—	5	1	—	—	3	9	23
Other European Countries	6	1	21	2	19	11	3	1	10	22	96
India	3	—	3	1	2	2	—	3	—	9	23
Other British Asiatic Possessions	—	—	1	—	—	1	—	—	—	4	6
Other Foreign Asiatic and Unspecified	2	—	—	—	6	3	—	—	1	5	17
Canada	—	—	6	—	4	1	—	—	1	5	17
Other British American Possessions	—	—	—	—	—	1	—	—	—	1	2
United States of America	3	—	4	—	1	18	—	—	1	10	37
Argentine Republic	—	—	—	—	1	1	—	—	—	—	2
Other Foreign American and Unspecified	—	—	—	—	2	—	1	—	—	1	4
Australia	8	2	13	3	8	5	—	1	1	18	59
New Zealand	2	—	3	—	2	2	—	—	1	—	10
TOTAL	410	30	581	99	452	317	50	45	118	590	2,692

(iv) MOVEMENT OF THE POPULATION BY COUNTRY AND OCCUPATION. EUROPEAN MALES, 1924—(*continued*).

(*b*) SOUTH AFRICANS RELINQUISHING DOMICILE.

Country of (*a*) Previous Abode. (*b*) Destination.	Primary Producers.		Industrial.	Transport and Communication.	Commercial.	Professional.	Personal Service.	Independent.	Other and Unspecified.	Dependents.	Total.
	Fishing and Agriculture.	Mining.									
South West Africa.	72	9	50	38	47	36	4	1	11	91	359
Mauritius.....	3	—	3	2	3	—	—	—	2	4	17
Nyasaland Protectorate	1	—	3	—	4	2	—	—	—	1	11
Rhodesia.....	66	25	75	5	64	31	8	4	9	45	332
Kenya.....	7	—	11	5	11	11	—	1	—	16	62
Other British African Possessions	19	1	7	5	8	7	—	—	7	29	83
Madeira.....	15	2	1	—	—	—	1	—	—	7	26
Portuguese East Africa	12	2	22	7	26	10	1	1	6	9	96
Other Portuguese Possessions	2	—	1	1	—	1	—	—	—	1	6
Other Foreign African and Unspecified	—	2	11	—	10	4	1	—	4	2	34
United Kingdom..	84	52	238	94	232	167	27	63	85	309	1,351
Denmark.....	6	—	—	—	—	—	—	—	—	—	6
Germany.....	4	—	5	3	2	5	1	1	3	8	32
Holland.....	1	—	4	—	3	—	1	—	2	2	13
Lithuania.....	—	—	—	—	1	—	—	—	—	—	1
Norway.....	77	—	—	3	—	—	—	—	1	2	83
Other European Countries	4	—	9	—	5	1	2	—	4	5	30
India.....	4	—	3	1	2	6	—	—	1	2	19
Other British Asiatic Possessions	1	—	—	—	2	1	—	—	—	2	6
Other Foreign Asiatic and Unspecified	1	1	2	—	2	1	—	2	1	2	12
Canada.....	1	1	5	1	5	3	2	1	1	7	27
Other British American Possessions	—	—	—	—	—	—	—	—	—	1	1
United States of America	1	—	18	1	7	9	—	1	2	11	50
Argentine Republic	2	1	7	1	5	2	—	—	—	2	20
Other Foreign American and Unspecified	1	—	—	—	2	1	—	—	—	1	5
Australia.....	32	12	111	21	75	27	9	14	25	77	403
New Zealand.....	3	1	13	1	8	2	—	1	5	9	43
Unknown and Unspecified	2	—	—	12	3	1	—	—	1	—	19
TOTAL.....	421	109	599	201	527	328	57	90	170	645	3,147

Table (v) shows the ages and marital condition of Europeans who stated their intention of taking up permanent residence, and also of South Africans who left the Union with the intention of not returning.

(v) AGE AND MARITAL CONDITION OF EUROPEANS ASSUMING AND RELINQUISHING DOMICILE, 1924.

AGES.	ASSUMING DOMICILE.				RELINQUISHING DOMICILE.			
	Single.	Married.	Widowed and Divorced.	Total.*	Single.	Married.	Widowed and Divorced.	Total.*
MALES.								
Years 1	59	—	—	59	51	—	—	51
2	75	—	—	75	49	—	—	49
3	46	—	—	46	43	—	—	43
4	41	—	—	41	36	—	—	36
0– 4	221	—	—	221	179	—	—	179
5– 9	133	—	—	133	176	—	—	176
10–14	144	—	—	144	188	—	—	188
15	41	—	—	41	24	—	—	24
Total under 16	539	—	—	539	567	—	—	567
16–19	235	1	—	236	154	1	—	155
20	87	2	—	89	51	—	—	51
21–24	374	33	—	408*	305	23	—	328
25–29	313	115	2	430	300	92	1	393
30–34	138	162	2	303*	186	157	2	345
35–39	72	169	8	249	119	187	10	317*
40–44	39	135	5	180*	108	191	8	307
45–49	20	83	2	105	63	176	7	246
50–54	13	53	2	68	55	117	5	178*
55–59	9	21	2	32	23	67	5	95
60–64	—	20	2	22	28	43	9	80
65–69	—	11	1	12	10	28	7	45
70–74	1	6	3	10	4	6	8	18
75 and over	—	6	3	9	5	8	5	18
Unspecified	—	—	—	—	1	3	—	4
Minors	861	3	—	864	772	1	—	773
Adults	979	814	32	1,828*	1,207	1,098	67	2,374*
TOTAL	1,840	817	32	2,692*	1,979	1,099	67	3,147*
FEMALES.								
Years 1	79	—	—	79	45	—	—	45
2	58	—	—	58	63	—	—	63
3	55	—	—	55	56	—	—	56
4	44	—	—	44	35	—	—	35
0– 4	236	—	—	236	199	—	—	199
5– 9	140	—	—	140	208	—	—	208
10–14	126	—	—	126	159	—	—	159
15	27	—	—	27	34	—	—	34
Total under 16	529	—	—	529	600	—	—	600
16–19	130	3	1	134	131	4	—	135
20	44	7	—	51	25	11	—	36
21–24	194	88	2	284	121	96	—	217
25–29	316	184	5	506*	140	186	7	333
30–34	162	158	12	332	109	180	19	308
35–39	105	155	19	279	68	188	14	270
40–44	50	90	13	153	61	164	27	252
45–49	23	63	10	96	43	113	26	182
50–54	14	44	11	69	29	52	26	107
55–59	11	25	15	51	21	52	22	95
60–64	6	13	23	42	15	32	33	80
65–69	—	8	10	18	4	18	21	43
70–74	—	3	14	17	7	11	15	33
75 and over	—	1	7	8	2	2	11	15
Unspecified	2	2	—	4	1	3	—	4
Minors	703	10	1	714	756	15	—	771
Adults	883	834	141	1,859*	621	1,097	221	1,939
TOTAL	1,586	844	142	2,573*	1,377	1,112	221	2.710

* Includes persons whose marital condition was unspecified.

Table (vi) shows the number of Europeans of South African birth who relinquished domicile during the year 1924. This is the first time that such information has been made available. As will be seen, a high proportion of the numbers were children under 16 years of age. Many of these, no doubt, were children of parents one or both of whom were not born in South Africa. The high proportion of married women, when compared with married men, would appear to indicate that a considerable number were married to husbands not South African born. On the other hand, a considerably lower proportion of unmarried South African born adult females left the Union than of unmarried adult males of South African birth.

(vi) AGE AND MARITAL CONDITION OF SOUTH AFRICAN BORN EUROPEANS RELINQUISHING DOMICILE, 1924.

AGES.	MALES.				FEMALES.			
	Single.	Married.	Widowed.	Total.	Single.	Married.	Widowed.	Total.
Years 1.....	47	—	—	47	44	—	—	44
2.....	42	—	—	42	56	—	—	56
3.....	35	—	—	35	44	—	—	44
4.....	26	—	—	26	23	—	—	23
5– 9.....	122	—	—	122	138	—	—	138
10–14.....	115	—	—	115	112	—	—	112
15.....	20	—	—	20	21	—	—	21
Total under 16.....	407	—	—	407	438	—	—	438
16–19.....	109	—	—	109	82	2	—	84
20.....	31	—	—	31	15	6	—	21
21–24.....	149	9	—	158	47	52	—	99
25–29.....	100	36	1	137	37	70	3	110
30–34.....	34	46	—	80	17	54	3	75*
35–39.....	19	43	2	65*	5	46	4	55
40–44.....	6	30	2	38	4	38	5	47
45–49.....	3	16	1	20	2	21	—	23
50–54.....	3	14	—	17	1	7	2	10
55–59.....	—	8	—	8	1	9	3	13
60–64.....	1	1	—	2	—	1	3	4
65–69.....	2	1	—	3	—	—	3	3
70–74.....	—	1	1	2	2	2	1	5
75 and over...	2	1	1	4	—	—	3	3
Adults.....	319	206	8	534*	116	300	30	447*
Minors.....	547	—	—	547	535	8	—	543
TOTAL.....	866	206	8	1 081*	651	308	30	990*

* Includes one divorced.

The following table (vii) shows the number of Europeans who stated that they were "in transit" through the Union. There is now a considerable traffic over the South African railways of persons passing through the Union to and from Rhodesia and the Belgian Congo. The extension of railways into the Congo, and the mineral development of that region, have increased the "in transit" traffic within recent years. It must be understood that the figures for the land border ports do not represent the full traffic, but only those persons who were travelling on single journey railway tickets.

(vii) ANALYSIS OF THE NUMBER OF EUROPEAN PASSENGERS "IN TRANSIT."

Country to or from which Proceeding.	ARRIVALS.			DEPARTURES.		
	Male.	Female.	Total.	Male.	Female.	Total.
South West Africa.....	46	50	96	34	26	60
Portuguese East Africa.....	165	64	229	130	74	204
Rhodesia and British Central Africa.....	1,293	1,059	2,352	1,019	827	1,846
Belgian Congo.....	782	375	1,157	387	174	561
Other Countries.....	1,123	670	1,793	1,691	1,006	2,697
TOTAL.....	3,409	2,218	5,627	3,261	2,107	5,368

4. **Non-European Migration.**—The following tables (i) and (ii) show the movement of the non-European population. The number of Asiatics who relinquished domicile during the year 1924 exceeded by 599 the number who came to take up permanent residence, while the number of other non-Europeans who left permanently balanced the number of new immigrants.

During the year an alteration was made in regard to the method of enumerating Asiatics passing to and from Komatipoort. The inward migration is uneven in its distribution. This is due to large numbers entering periodically a day or so after the arrival of a British India Steam Navigation boat at Delagoa Bay. The outward movement is uneven for the same reason. Owing to the many difficulties encountered in endeavouring to effect full and accurate enumeration, it was decided to relieve the Railway Administration of the enumeration of Asiatics at this border station, and to confine the enumeration to Europeans and coloured persons travelling on single journey railway tickets.

The Principal Immigration Officer, Pretoria, has a record of all permits issued to Asiatics leaving the Transvaal *via* Komatipoort, and officers of the staff of the Union Agent, Lourence Marques, issue permits to all Asiatics entering the Union *via* Komatipoort. Through the courtesy of these officials, the Census Office obtained statistical data sufficiently detailed to compile tables of non-European migration. For the current year statistical information is being supplied monthly by the Principal Immigration Officer, Pretoria, in regard to departures, and by the Immigration Officer, Komatipoort, in regard to arrivals.

It should be noted that the statistics differ in one respect from those previously obtained by direct enumeration. Whereas previously the figures were in respect of Asiatics travelling on single journey railway tickets only, they now record the movement over the border of all Asiatics. The statistics for Asiatics crossing the border at Mafeking and Nakop are still of single ticket passengers, but, as will be seen from the tables, the traffic at these places is negligible. All Asiatics departing and arriving *via* Durban are enumerated. The new arrangement thus gives a very comprehensive survey of the movement of the Asiatic population *via* the two main ports of entry from India.

(i) SUMMARY OF ARRIVALS AND DEPARTURES OF NON-EUROPEANS DURING THE YEAR 1924.

(*a*) ARRIVALS.

PORT OF ENTRY.	Visitors Arriving.		Assuming Domicile.	Resuming Domicile.	All Arrivals.	"In Transit."
	Business.	Holiday.				
ASIATICS.						
Cape Town	1	—	1	5	7	1
Durban	15	10	429	1,631	2,085	29
Total via Sea	16	10	430	1,636	2,092	30
Mafeking	2	2	1	2	7	—
Komatipoort	—	—	201	778	979	—
Nakop	—	—	—	3	3	—
Total via Land	2	2	202	783	989	—
TOTAL	18	12	632	2,419	3,081	30
OTHER NON-EUROPEANS.						
Cape Town	—	2	9	21	32	—
Durban	1	1	14	71	87	61
Port Elizabeth	—	—	4	—	4	—
East London	—	—	—	1	1	—
Total via Sea	1	3	27	93	124	61
Mafeking	—	1	9	18	28	—
Komatipoort	—	3	—	1	4	—
Nakop	—	—	—	7	7	—
Total via Land	—	4	9	26	39	—
TOTAL	1	7	36	119	163	61

(*b*) DEPARTURES.

PORT OF EMBARKATION.	Visitors Departing.		Relinquishing Domicile.	Temporary Absence.	All Departures.	"In Transit."
	Business.	Holiday.				
ASIATICS.						
Cape Town	—	—	1	20	21	6
Durban	2	16	1,207	2,305	3,530	19
Port Elizabeth	—	1	—	19	20	—
East London	—	1	—	8	9	—
Total via Sea	2	18	1,208	2,352	3,580	25
Mafeking	2	—	—	1	3	1
Komatipoort	—	1	23	500	524	8
Total via Land	2	1	23	501	527	9
TOTAL	4	19	1,231	2,853	4,107	34
OTHER NON-EUROPEANS.						
Cape Town	—	—	12	15	27	7
Durban	3	2	6	113	124	55
Port Elizabeth	1	—	3	2	6	—
East London	—	1	—	—	1	—
Total via Sea	4	3	21	130	158	62
Mafeking	—	—	7	4	11	1
Komatipoort	—	1	5	3	9	—
Nakop	—	—	3	1	4	—
Total via Land	—	1	15	8	24	1
TOTAL	4	4	36	138	182	63

(ii) **BIRTHPLACES OF NON-EUROPEANS ASSUMING AND RELINQUISHING DOMICILE, 1924.**

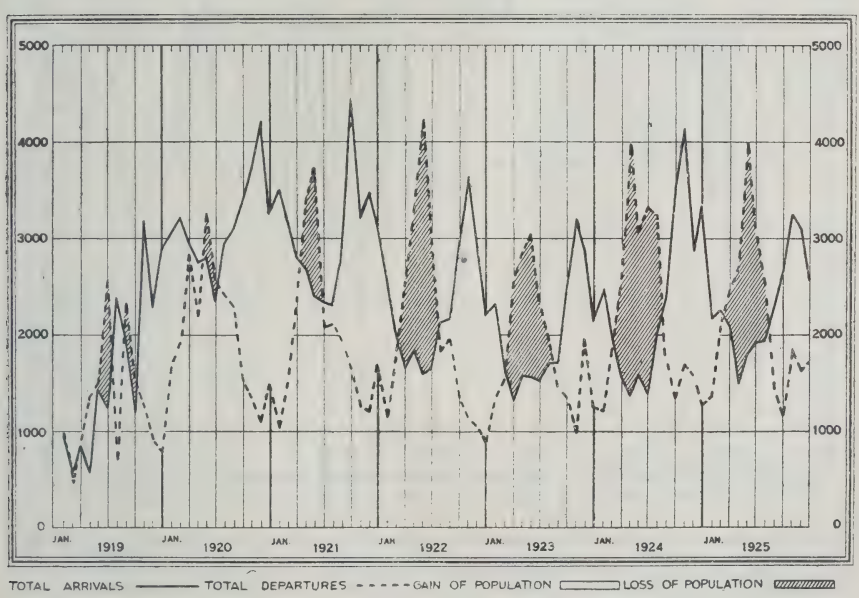
BIRTHPLACE.	Assuming Domicile.			Relinquishing Domicile.		
	Male.	Female.	Total.	Male.	Female.	Total.
Cape	—	—	—	28	18	46
Natal	—	—	—	220	206	426
Bechuanaland	8	—	8	—	—	—
Mauritius	5	3	8	5	2	7
St. Helena	6	6	12	2	2	4
Other British African Possessions	5	1	6	5	—	5
India	392	188	580	608	148	756
China	21	17	38	11	—	11
Syria	5	2	7	—	—	—
Other	5	4	9	11	1	12
TOTAL	447	221	668	890	377	1,267

5. **Assistance and Regulation of Immigration.** – (i) *General.*—At various times the Government has given state-aided passages from England to Europeans, but this assistance has been limited almost entirely to female domestic servants, and the wives and families of Europeans settled in the country. On the other hand, no obstacle is placed in the way of the entry of white immigrants, provided that they are of good health and character, and are able themselves or through their friends or employers to show that they have means of support. Experience has shown the necessity for these requirements, as the circumstances of the country do not render it always easy for a new arrival to make his way, unless on the one hand he is a thoroughly competent tradesman, or on the other hand has work definitely assigned to him or friends who are able to introduce him to employment and in the meantime to assure him of support. Particularly is it difficult for an immigrant to procure employment who is without a trade, or who has indifferent trade qualifications, or is not specially qualified in some other capacity. It is therefore essential that persons of such a type should be able to show on arrival that they have means of support until they may be able to secure work. For this purpose the sum of £20 is prescribed as ordinarily sufficient; though in many cases a smaller sum and in certain cases no sum at all is looked for; while on the other hand in exceptional circumstances an even higher figure may be required.

ARRIVALS INTO AND DEPARTURES FROM THE UNION OF SOUTH AFRICA OF EUROPEANS.

(GROSS FIGURES, EXCLUDING "IN TRANSIT" PASSENGERS),

JANUARY, 1919, TO DECEMBER, 1925.

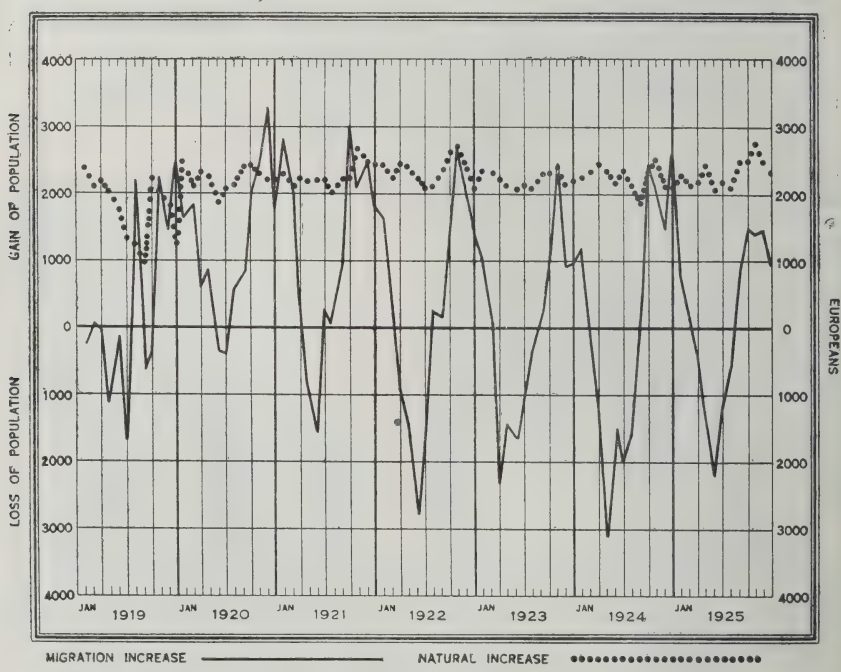


(ii) *Prohibited Immigrants.*—By the *Immigrants' Regulation Act,* No. 22 of 1913, the Immigration Department of the Union is empowered to regulate the entry of immigrants, and certain classes of persons denominated *prohibited immigrants* may be excluded or even extruded from the country; or their residence may be circumscribed as to time and in other respects. Amongst such classes are persons who have been convicted of serious crime; persons of ill-fame; persons who are insane, diseased, including those who suffer from tuberculosis or are otherwise physically afflicted. Persons likely to become a public charge, and in some cases illiterate persons are also regarded as *prohibited immigrants*; while by section 4 (1) (*a*) of the Act the Minister of the Interior is empowered to certify as *prohibited immigrants* persons, or classes of persons, whose presence for

economic or certain other reasons is considered undesirable. For the operation of this clause as affecting Asiatic immigration reference may be made to § 3 (3) of this Chapter.

Very full powers of restriction, arrest and detention are given to Immigration Officers, who are stationed not only at the ports, but at a number of places within the territory or at the borders of the Union. Any person so arrested or restricted has, however, the opportunity of appearing before one of the *Appeal Boards*, of which three have been constituted, viz.: at Pretoria, Durban, and Cape Town. These centres are the headquarters of the three Principal Immigration Officers of the Union, each of whom has control over the administration of a Province, the Province of the Orange Free State being under the jurisdiction of the Principal Immigration Officer, Natal.

MONTHLY NATURAL AND MIGRATION INCREASE OF THE EUROPEAN POPULATION, JANUARY, 1919, TO DECEMBER 1925.



EXPLANATION OF GRAPH :—The space between each vertical line represents three calendar months, and between each horizontal line 1,000 persons. The graphical lines below the heavy zero lines indicate decrease of population. The migration increase is the difference between gross arrivals and departures, and the natural increase the excess of births over deaths.

(iii) *Previous Immigration Laws.*—The *Union Immigration Act* repealed the Immigration Acts in force in the various Provinces, exercise of control over the entry of undesirable immigrants having been for a long period recognized as necessary :—in Natal from the year 1897; in the Transvaal and Orange Free State, from the year 1902, when the *Peace Preservation Ordinance* was passed [following the period of the war (1899-1902) during which military rule had given the necessary powers]; and in the Cape Colony from the year 1903, when the first *Immigration Act*, No. 47 of 1902, came into operation.

(iv) *Restrictive Effects of the Law.*—The tables given below show the number of those seeking admission whose entry was prohibited or movements restricted :—

NATIONALITY AND DISPOSAL OF PROHIBITED IMMIGRANTS, 1925.

Race and Nationality.	Removed from Union.	Allowed Conditional Passage through Union.	Escaped.	Died.	Allowed to Remain on Appeal.	Allowed Temporary Residence under Permit.	Total.
EUROPEAN.							
American	5	—	—	—	1	—	6
British	48	—	—	2	3	22	75
Finn	—	—	—	—	—	3	3
German	11	—	—	—	—	1	12
Greek	2	—	—	—	—	—	2
Italian	1	—	—	—	—	2	3
Lithuanian	2	—	—	—	6	—	8
Netherlander	6	—	—	—	1	—	7
Norwegian	3	—	—	—	—	—	3
Portuguese	9	—	—	—	—	—	9
Russian	—	—	—	—	1	—	1
Spanish	1	—	—	—	—	—	1
Swede	2	—	—	—	—	1	3
TOTAL	90	—	—	2	12	29	133
NON-EUROPEAN.							
African Natives from—							
British East	9	—	—	—	—	3	12
British West	4	—	—	—	—	—	4
Rhodesia	13	—	—	—	—	7	20
Portuguese East Africa	5	—	—	—	—	5	10
Other African	11	—	1	—	—	1	13
American	1	—	—	—	—	—	1
Chinese	4	2	—	—	—	3	9
Eurasian	—	—	—	—	—	1	1
Goanese	1	1	—	—	—	—	2
Indian	84	16	—	2	13	12	127
Japanese	1	—	—	—	—	5	6
Mauritians	1	92	—	—	—	—	93
Syrians and Armenians	—	—	—	—	1	—	1
Other, Non-African	16	—	—	—	—	2	18
TOTAL	150	111	1	2	14	39	317

In respect of the persons restricted it is necessary to note that the actual number stopped is no real index of the restrictive operation of the law as protecting the country from undesirable entrants. The principal effect is undoubtedly deterrent. The shipping companies, mainly to protect themselves and partly also to save prospective passengers from a long and fruitless journey, refuse to carry persons clearly coming under the denominated classes of *prohibited immigrants.* It has also to be remembered that vessels carrying certain classes of crews are carefully guarded in order to prevent desertions —a precaution which experience has shown to be of importance.

(v) *Land Border Immigration.*—Immigration officers are stationed at the points of entry by rail into the Union from Mozambique at Komatipoort and at Mafeking from Rhodesia. The authorities of the latter colony also render certain valuable assistance in checking illicit immigration. It has now been found possible under the *Statistics Act* of 1914 to examine passengers entering the Union at the land borders in the same way as at the ports (see paragraph 2 *supra*).

6. **Permits.**—Under the *Immigrants Regulation Act* provision is made for the issue by an immigration officer of a permit, described as a *certificate of identity*, to any person proving lawful residence in the Union who, intending to leave the Union, desires some assurance as to his title to return to the Union without coming under the restrictive operation of the Act. The fee charged is 2s. 6d. Photographs and means of identification are required. The duration of such certificates is limited to three years. Holders of these documents who do not return to the Union within the currency of the certificates, may be required to undergo the tests imposed by law; and may ordinarily be taken to have abandoned any domicile they had previously acquired in the Union. Permits are only ssued to any persons who are within the Union.

7. **Passports.**—Passports are issued to persons in the Union who are natural-born British subjects, to their wives (and widows), and to persons who have been naturalized in the United Kingdom or in the Union. Application is made on a prescribed form to the Department of the Interior, and photographs and evidence of identity and status are essential. From the 1st December, 1924, the initial availability of passports was extended from two to five years, and they may thereafter be renewed for any period from one to five years, but in no case may the validity of a passport be extended beyond ten years from the original date of issue. The fee for a passport is £1, and a fee of 2s. is charged for each renewal or visé. The fact that owing to conditions arising from the War every person travelling abroad must now be in possession of a passport, explains the largely increased number issued since 1914, as indicated in the subjoined table. As to certain limitation of the issue of passports to naturalized persons, see § 5 (2) of this Chapter.

British passports, with a few exceptions, are valid for travel throughout the British Empire; consequently the holder of a British passport may travel from one part of the British Empire to another without a fresh endorsement at the commencement of each journey, providing the validity of the passport has not expired. The permits to travel to Portuguese East Africa are also valid for any number of journeys between that territory and the Union during a period of one year from the date of issue.

NUMBER OF PASSPORTS ISSUED, 1910 TO 1925.

Year.	Number Issued.	Year.	Passports Issued and Renewed.		
			New Passports.	Renewed or Endorsed.	Permits for Portuguese East Africa.
1910.....	58	1918.....	5,604	—	—
1911.....	217	1919.....	9,105	—	—
1912.....	262	1920.....	11,957	—	—
1913.....	307	1921.....	9,776	—	—
1914.....	227	1922.....	8,464	—	—
1915.....	1,107	1923.....	7,944	6,844	2,220
1916.....	7,168	1924.....	8,846	5,974	2,313
1917.....	5,216	1925.....	7,798	6,511	2,694

§ 5. Naturalization of Aliens.

1. **Legislation.**—The *Naturalization of Aliens Act*, 1910, was one of the first laws passed by the Union Parliament in its first Session. Particulars are given hereunder regarding (i) the qualifications which an alien must possess to render him eligible for naturalization. (ii) the procedure to be followed, and (iii) the expenses which it is necessary to incur in obtaining a certificate of naturalization.

(i) *Qualifications.*—To be eligible for naturalization an alien must satisfy the following conditions :—

(1) He must have attained the age of twenty-one years.

(2) (*a*) He must within the five years immediately preceding the date of his application for naturalization have resided for a period of not less than two years in the Union (or in any Colony or territory included at the date of his application within the Union) ; or

(*b*) he must have been in the service of the Crown.

(3) He must be of good character and repute.

(4) He must intend, if naturalized, to reside in the Union, or to serve under the Crown in the Union.

(ii) *Procedure.*—An alien desiring to be naturalized must apply on a prescribed form. This form, and the two other forms necessary, can be obtained free of charge on application to the Department of the Interior. The first step is for the applicant to publish in the *Union Gazette* his notice of intention to apply for naturalization. The form of this notice containing particulars as to how it should be published is supplied with the form of application. The next step is to procure a certificate of good repute from a Magistrate, or a Justice of the Peace, to whom the applicant is personally known. No such officer will sign this certificate unless the applicant is so known to him. The form of certificate of repute is supplied with the form of application. The applicant must then complete the form of application and declare its accuracy before a Magistrate or Justice of the Peace. The form of application, so completed, with the certificate of repute attached, must then be sent to the Secretary for the Interior at Pretoria. If the application is approved by the Minister, the applicant will receive a form of declaration of allegiance, which he must sign before a Magistrate or Justice of the Peace of the Union, and return to the Secretary for the Interior, and on receipt of the declaration of allegiance a certificate of naturalization may be issued.

(iii) *Expenses.*—The expenses which it is necessary to incur in obtaining a certificate of naturalization are :—

	£	s.	d.
(1) Cost of publication in *Union Gazette*	0	5	6
(2) Revenue stamp on form of application.....	1	1	0
(3) „ „ certificate of naturalization..	2	10	0
TOTAL.....	£3	16	6

2. Effect of Naturalization under the Union Law.—A person naturalized under the Act of 1910 becomes entitled in the Union to all the rights, powers, and privileges, and subject to all the obligations of a natural-born British subject in the Union, unless the law provides otherwise. The wife of a person naturalized under this Act acquires in the Union the same status of a naturalized British subject as her husband. The children of a person naturalized under this Act who, while under the age of twenty-one, become resident with their father or mother in the Union are deemed to be naturalized under this Act. A person naturalized in the Union is only while in the Union entitled to the privileges, and subject to the obligations, of a British subject. He cannot, therefore, by virtue of his naturalization in the Union, claim the rights of a British subject in the United Kingdom or in any British Dominion or Colony other than the Union of South Africa. At the same time, all persons, wherever born or naturalized as British subjects, are regarded generally as coming under the protection of the British Empire in relation to foreign States ; except that a person naturalized as a British subject is not regarded as a British subject when he is within the limits of the foreign state of which he was a subject previously to obtaining British naturalization, unless he has ceased to be a subject of that State in pursuance of the laws thereof or in pursuance of a treaty to that effect. For this reason a naturalized British subject will not be entitled to receive a British passport available for the country of his origin. Certificates of naturalization as British subjects were not granted during the continuance of the War to subjects of Allied countries of military age unless documentary evidence was produced that they had fulfilled the military obligations of their country or had secured exemption therefrom.

3. **Number and Particulars of Certificates Issued.**—The table given below enumerates the Certificates of Naturalization issued for a series of years :—

NUMBERS AND PREVIOUS NATIONALITY OF PERSONS NATURALIZED IN THE UNION, 1917 TO 30th JUNE, 1925.

Previous Nationality.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	Jan. to June, 1925.
American.....	5	3	—	—	8	23	4	14	6
Argentinian...	1	—	—	—	—	—	1	—	—
Armenian.....	—	—	—	2	—	—	—	—	—
Austrian.....	—	—	—	32	56	11	16	11	7
Belgian.....	—	—	—	—	2	—	2	—	2
Bulgarian.....	—	—	—	—	—	—	—	1	—
Chilian.....	—	—	—	—	1	—	—	—	—
Czecho-Slav...	—	—	—	—	—	—	1	1	—
Dane.....	9	1	4	6	12	4	2	4	3
Finn.....	—	—	—	—	3	—	—	1	—
French.....	2	—	1	9	9	3	6	5	1
German.....	1	4*	1	196	404	65	55	45	33
Greek.....	—	—	1	41	34	21	19	39	21
Hungarian....	—	—	—	5	2	—	1	1	—
Italian.....	4	2	5	11	12	7	13	21	7
Lett.....	—	—	—	—	—	—	1	7	3
Lithuanian....	—	—	—	—	—	—	3	15	13
Luxemburger.	—	—	—	—	—	—	1	—	—
Montenegrin..	—	—	—	2	1	—	—	—	—
Netherlander..	48	20	39	29	43	7	15	24	15
Norwegian....	11	8	12	10	16	1	5	1	1
Pole.....	—	—	—	—	—	—	1	1	3
Portuguese....	1	1	1	5	7	5	—	4	—
Roumanian...	—	1	1	3	1	—	3	3	—
Russian.....	26	18	147	1,440	631	159	164	206	123
Salvadorian...	—	—	—	—	—	1	—	—	—
Serb.....	—	—	—	1	—	—	—	—	—
Spanish.....	—	—	1	2	3	—	—	—	—
Swede.....	7	5	7	15	7	—	3	5	1
Swiss.....	9	5	4	8	5	3	3	6	4
Syrian.....	1	2	—	—	—	1	—	10	7
Turk.....	—	—	—	28	28	6	12	4	4
TOTAL....	125	70	224	1,845	1,285	317	331	429	254

* Widow (Irish) and two sons of denationalized German.

CHAPTER XXV.

VITAL STATISTICS.

§ 1. Registration of Births and Deaths.

1. **System of Registration.**—Until the year 1923 a different series of laws relating to the registration of births and deaths was in force in each of the Provinces, making the co-ordination of registration difficult and greatly restricting the value of the vital statistics of the Union. In 1923 the *Births, Deaths, and Marriages Registration Act* (No. 17), consolidating and amending the laws in force in the various Provinces, was passed and brought into operation as from 1st January, 1924.

The main features of the Act are as follows :—

Provision is made for the apointment of a Registrar for each of the four Provinces; but one Registrar-General for the whole Union may be appointed. District Registrars are appointed for each Magisterial District, and where not specially appointed, magistrates will *ex officio* be Registrars for their respective districts.

A distinction is drawn between urban and rural areas. The former is defined as including an area under the jurisdiction of municipal councils, borough councils, town councils, village councils, town boards, local boards, village management boards, and health committees, but may include other areas at the discretion of the Minister. Except for the latter proviso, this definition is identical with that adopted by the Census Office for tabulating the Population Census.

Registration is compulsory for all races of the population in urban areas. In rural areas natives may register voluntarily ; but for all other races registration is compulsory. The Governor-General, however, may make special regulations applicable to natives and by proclamation apply Chapter IV of the Act, relating to registration in areas other than urban, to aboriginal natives. The term *native* is defined as meaning a person both of whose parents belong or belonged to an aboriginal race or tribe of Africa including any person of mixed race living as a member of any native community, tribe, kraal, or location. Until such time as the Act is applied to Indian immigrants in Natal, Law No. 2 of 1891 (Natal) which provides for birth, marriage, and death registration of Indians in that Province remains in force.

In urban areas the time limit for reporting a birth is 7 days and for a death twenty-four hours. Information concerning a birth or death must be given by a qualified informant, who must appear personally before the Registrar of the district in which the event occurred. In rural areas the prescribed period in which to register a birth or a death, is 30 days.

All deaths in urban areas must be certified as to the cause by a qualified registered medical practitioner. Without such certificate the district Registrar cannot authorize burial ; but must report the facts to the Magistrate, who will institute inquiries into the cause of death and, if necessary, hold an inquest.

A medical certificate is not ordinarily required in the event of a death in a rural area ; but, whenever a medical practitioner has attended a person during the last illness, he is required to furnish a certificate as to the cause of death, or of his inability to sign such a certificate.

Deaths occurring on shipboard in Union ports or waters or in transit to Union ports require to be registered at the first Union port of call ; but only births of children whose parents reside or intend to reside in the Union require to be registered.

Provision is also made for the transmission by Marriage Officers of the duplicate original copy of a marriage register to the Registrar of the Province in which the marriage took place for record.

The Act empowers the Governor-General to promulgate regulations—

(1) for the management of Registrar's Offices or district registration offices;
(2) prescribing the duties or powers of registrars and district registrars;
(3) prescribing the nature and extent of information respecting births, deaths, and marriages;
(4) prescribing the necessary forms, certificates, and registers to be used;
(5) prescribing the fees payable for searches, certificates issued, and for acts performed under the provisions of the Act.

Full particulars of the systems of registration formerly in force in the various Provinces of the Union were given in the fourth and previous issues of this *Year Book*.

The registration of births and deaths of Europeans may, for all practical purposes, be said to be complete throughout the Union.

The provision in Act No. 17 of 1923 for voluntary registration of native births and deaths in rural areas has resulted in fewer registrations than formerly.

Section 133 (1) of the *Public Health Act*, No. 36 of 1919, provides that the Minister of Public Health may, when so requested by a local authority, make regulations requiring the father of any child if he is residing with the mother when the child is born, or, in his absence, the person attending on the mother at the time of or within six hours after the birth, to report the birth forthwith to the local authority with such details as may be prescribed by the regulations.

2. **Periods of Tabulation.**—It has been the practice in the Union, in common with all other countries, to tabulate vital statistics for the *calendar year*. The records for past years in the Statistics Office are all for period 1st January to 31st December, and they have been built up for a series of years, thus making a useful comparative history of the vital events of the population. The tables given in this chapter are tabulated on this basis and thus afford a ready comparison with the vital statistics tabulated and published by other Dominions and countries. The Union Department of Public Health, however, has adopted for the purposes of health reports a Union *health year*, which runs from 1st July in one year to the 30th June in the following year. This necessitates the tabulation of vital registrations half-yearly in order to effect comparison with the local health year, as well as for universal comparison. In addition to these two tabulation periods, the Statistical Office also collects and tabulates monthly preliminary figures for certain large towns, and quarterly figures for the Union and Provinces.

The following table shows the number of European births and deaths registered and the vital rates during the last six *health* years, and also the estimated European population at the middle of each year:—

VITAL REGISTRATIONS AND RATES PER 1,000, UNION HEALTH YEARS 1919–20 TO 1924–25.

EUROPEAN POPULATION.

Health Year.	Estimated Population, 31st Dec.	Births.		Deaths.		Infantile Mortality.	
		No.	Rate.	No.	Rate.	No.	Rate.
1919–20	1,488,165	41,463	27·86	17,301	11·63	3,546	85·52
1920–21	1,511,251	43,064	28·50	15,433	10·21	3,599	83·57
1921–22	1,547,085	43,428	28·07	15,562	10·06	3,177	73·16
1922–23	1,567,987	42,551	27·14	15,121	9·64	3,161	74·29
1923–24	1,595,253	42,413	26·59	15,068	9·45	3,097	73·02
1924–25	1,624,123	42,473	26·15	15,994	9·85	3,167	74·57

§ 2. Births.

1. **Births Registered.**—The total number of births registered from 1911 of (*a*) Europeans and (*b*) non-Europeans is shown in the following tables for individual years from 1921 and grouped in quinquennial periods for years prior to the Census Year 1921*. The large increase in the Natal non-European figures for the years 1916 to 1920 is caused by the inclusion of Indian births not previously recorded, and the still greater increase in subsequent years by the addition of births of natives also. The registration law in the Orange Free State, prior to 1924, applied to Europeans only.

The significance of the figures in table (*b*) is purely administrative, owing to the incompleteness of the registration of births of native and coloured persons.

* The detailed figures up to the year 1920 will be found in previous issues of this *Year Book*.

REGISTRATION OF BIRTHS, 1911 TO 1925.

Year.	Cape.	Natal.	Transvaal.	Orange Free State.	Union.	
					Number.	Annual Rate.
(*a*) TOTAL BIRTHS REGISTERED—EUROPEAN.						
1911–15*	90,301	13,964	77,384	25,060	206,709	31·11
1916–20*.....	87,803	14,619	79,579	24,668	206,669	28·56
1921.....	18,062	3,370	16,582	5,288	43,302	28·44
1922.....	18,248	3,294	16,370	4,920	42,832	27·52
1923.....	18,296	3,229	15,619	5,037	42,181	26·70
1924.....	18,730	3,410	15,287	4,919	42,346	26·29
1925.....	18,366	3,509	16,348	5,188	43,411	26·51
(*b*) TOTAL BIRTHS REGISTERED—NON-EUROPEAN (PARTIAL REGISTRATION).						
1911–15*.....	208,118	61,990	19,547	—	289,655	—
1916–20*.....	184,314	147,857	20,133	—	352,304	—
1921.....	35,739	37,406	4,688	3	77,836	—
1922.....	39,807	29,421	5,073	—	74,301	—
1923.....	39,350	18,167	5,128	—	62,645	—
1924.....	37,593	10,512	5,118	1,012	54,235	—
1925.....	36,984	8,319	5,031	1,277	51,611	—

* For annual figures, see previous issues of this *Year Book*.

2. **Births Registered according to Sex.**—Particulars are given below, from 1911, of the total number of births registered in each Province and in the Union amongst Europeans, distinguishing males from females :—

BIRTHS REGISTERED—EUROPEANS, MALE AND FEMALE, 1911 TO 1925.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1911–15*	46,479	43,822	7,129	6,835	39,612	37,772	12,968	12,092	106,188	100,521
1916–20*	45,722	42,081	7,536	7,083	41,065	38,514	12,888	11,780	107,211	99,458
1921....	9,269	8,793	1,683	1,687	8,546	8,036	2,666	2,622	22,164	21,138
1922....	9,430	8,818	1,711	1,583	8,334	8,036	2,505	2,415	21,980	20,852
1923.....	9,393	8,903	1,676	1,553	7,974	7,645	2,563	2,474	21,606	20,575
1924.....	9,690	9,040	1,755	1,655	7,900	7,387	2,562	2,357	21,907	20,439
1925....	9,524	8,842	1,816	1,693	8,355	7,993	2,713	2,475	22,408	21,003

* For annual figures, see previous issues of this *Year Book*.

3. **Birth Rate and Proportion of the Sexes.**—The following tables (i) and (ii) show for Europeans during a period of years the birth rate per thousand of the estimated mean population, and the proportions of the sexes. The decrease in the rate in 1919 is attributable to the influenza epidemic in the preceding year; but from the year 1910, when the birth rate was 32·52, there has been a gradual decline with slight fluctuations, the rate for 1924 being the lowest yet recorded. As to the proportion of the sexes, the figures, when compared with other dominions and various European countries, show a slightly greater excess of male over female births. Owing to the small numbers on which in the Union these figures are based, the fluctuation is greater than in countries possessing a larger and more settled population.

For earlier years, reference should be made to previous issues of this *Year Book*.

Table (iii), showing the crude birth rates of various countries, was compiled from the latest available information. The figures for the Union and Provinces refer to the European population only.

(i) BIRTH RATE PER 1,000 EUROPEANS, 1918 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1918	28·18	23·23	31·07	26·75	28·59
1919	26·27	22·44	29·28	25·52	26·91
1920	28·58	24·38	31·37	26·71	28·97
1921	27·73	24·52	30·43	28·01	28·44
1922	27·53	23·15	29·27	25·65	27·52
1923	27·31	22·09	27·40	26·01	26·79
1924	27·54	22·61	26·20	25·05	26·29
1925	26·68	22·64	27·46	26·12	26·51

(ii) MASCULINITY* OF BIRTHS, EUROPEANS, 1918 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1918	109·09	106·94	107·28	106·27	107·91
1919	107·80	113·65	106·52	110·09	107·99
1920	108·33	101·49	107·55	108·78	107·55
1921	105·41	99·77	106·35	101·68	104·85
1922	106·94	108·09	103·71	103·73	105·41
1923	105·50	107·92	104·30	103·60	105·01
1924	107·19	106·04	106·94	108·70	107·18
1925	107·71	107·27	104·53	109·62	106·69

* Number of males to each 100 females born.

(iii) BIRTH RATES PER 1,000, VARIOUS COUNTRIES.

Country.	Year.	Crude Birth Rate.	Country.	Year.	Crude Birth. Rate.
Egypt	1922	43·2	Austria	1922	22·7
Japan	1922	34·2	Denmark	1922	22·3
Spain	1923	30·5	United States (Registration Area) Europeans.	1922	22·2
Hungary	1922	29·4	Non-Europeans	1922	26·0
Union of South Africa (Europeans)	1924	26·3	New Zealand	1923	22·0
Netherlands	1923	26·0	Germany	1924	21·1
Finland	1922	23·4	Belgium	1922	20·4
Canada (excluding Quebec)	1924	23·1	Switzerland	1922	19·6
Norway	1923	23·1	Irish Free State	1923	19·4
Northern Ireland	1922	23·0	France	1924	18·9
Scotland	1923	22·8	England and Wales	1924	18·8
			Sweden	1924	18·1

Birth Rates in Various Cities.—The birth rates in certain foreign and British cities in various parts of the world for the year 1924 are given in the following table:—

(iv) BIRTH RATES PER 1,000—VARIOUS CITIES—1924.

City.	Rate.	City.	Rate.	City.	Rate.
Dublin	25·5	Amsterdam	20·0	Paris	15·9
Glasgow	24·1	Edinburgh	19·7	Oslo (Christiania)	14·9
Belfast	24·0	Durban	19·4	Vienna	14·9
Johannesburg	23·5	London	18·7	Stockholm	12·6
Cape Town	21·8	Copenhagen	18·6	Berlin	10·2
New York	21·6	Antwerp	17·4		
Warsaw	20·8	Buda-Pest	17·0		

Birth Rates in the Nine Largest Towns.—With the growth of population in the largest urban centres of the Union it has become possible to calculate vital rates for Europeans in these centres without obtaining the wildly fluctuating results which are usually found where the basic figures are small.

Rates and figures are also published for the non-European community of the large towns. Too much reliance, however, must not be placed upon these results in the case of the non-coastal towns, as this section of the population is a constantly changing one. Moreover, there is frequently a predominance of one sex, and those persons in the community who are employed as domestic servants generally are unmarried, or if married, are separated from their spouses. The rates are in a sense of little value, but have been inserted as a matter of record. The low non-European birth rate for Johannesburg is due to the large numbers of male natives in the population living in mine compounds. The figures for Pretoria and for other towns have been carefully checked and the variations can be satisfactorily explained. For example, it is found that the non-European population of Pretoria is principally Bantu and that the ratio of males to females is 3 to 1. Of the female population less than one-third are married women. Moreover, it is customary for native women to leave the towns and proceed to their kraals for confinement. The number of births registered is, therefore, small in proportion to the population upon which the vital rates are computed. These factors also influence the infantile mortality and general death-rate.

Cape Town, Port Elizabeth, and East London have a large mixed non-European population of a stationary type, who live in the towns in a similar manner to Europeans. The computed vital rates for these municipalities are probably reliable. The following table shows the birth rates in the nine largest municipalities in the Union :—

(v) NUMBER OF BIRTHS AND BIRTH RATES PER 1,000 IN NINE PRINCIPAL TOWNS IN THE UNION, 1923 AND 1924.

Town.	European Population (Mean 1924).	European.				Non-European.			
		1924.*		1923.		1924.		1923.	
		Births.	Birth Rate.	Births.	Birth Rate.		Birth Rate.	Births.	Birth Rate.
Cape Town	108,101†	2,351	21·75	2,327	21·80	4,575	53·94	4,186	49·94
Port Elizabeth	25,683	720	28·03	805	32·03	673	51·72	655	50·47
East London	18,345	497	27·09	542	30·28	792	56·06	651	47·45
Kimberley	17,653	405	22·94	459	26·00	802	37·55	—	—
Pietermaritzburg	17,928†	374	20·86	477	26·37	390	21·37	336	18·60
Durban	51,933	1,005	19·35	1,267	25·10	1,143	22·42	1,067	21·30
Pretoria	37,084†	895	24·13	1,067	28·07	401	14·79	495	18·64
Johannesburg	159,891	3,755	23·48	3,888	24·79	1,738	12·63	1,738	12·77
Bloemfontein	18,318†	373	20·36	468	25·49	340	16·30	—	—

* Births to residents occurring outside municipal area included. Births to non-residents occurring within the municipal area excluded.

† These figures exclude inmates of mental hospitals and, in the case of Pretoria, the leper asylum and central prison.

4. **Births in Regional Divisions.**—The following table shows the number of births and the birth rate in six regional divisions of the Union. The divisions are non-administrative, but have been arranged as far as possible to accord with the variations in altitude, rainfall, and the different climatic conditions prevailing generally. Each division comprises a number of magisterial districts. A fuller description of the areas is given in Chapter XXIV.

The *coastal* regions, which contain a population of rather more than a quarter of the total European population show a consistently lower birth rate than the general rate for the whole Union. The *highveld* region, in which more than half the Europeans reside, has a birth rate very similar to that of the whole Union. Curiously enough, the *Transvaal bushveld*, which comprises many unhealthy districts, shows a high birth rate and a low infantile mortality rate (*vide* paragraph 16 in § 3.)

BIRTHS IN REGIONAL DIVISIONS—EUROPEANS, 1921 TO 1924.

Divisions.	No. of Births.				Birth Rates (per 1,000).			
	1921.	1922.	1923.	1924.	1921.	1922.	1923.	1924.
I. South - Western Coastal.....	7,574	8,036	8,013	8,355	25·38	26·21	25·61	26·07
II. South - Eastern Coastal.....	3,615	3,618	3,557	3,735	25·17	24·38	23·36	23·82
III. Karroo-Cape Central.....	5,227	5,166	5,238	5,277	30·30	29·96	30·58	30·88
IV. Highveld.....	23,235	22,303	21,656	21,535	29·60	27·80	26·60	25·95
V. Cape Thornveld.	1,580	1,565	1,515	1,448	27·96	27·60	26·81	25·58
VI. Transvaal Bushveld.....	2,071	2,144	2,202	1,996	31·13	30·66	30·22	26·21
UNION OF SOUTH AFRICA.....	43,302	42,832	42,181	42,346	28·44	27·52	26·70	26·29

5. **Natural Increase.**—The number of births in excess of deaths, which showed a steady decline from 1911 to 1917, has more recently moved in an upward direction. The year 1918 was highly abnormal and cannot be considered for comparative purposes in this connection. Although the males born are more numerous than the females, the actual increase in the population from the excess of births over deaths is greatly in favour of the females. The male population of the Union exceeds the female, but there is a correspondingly greater number of deaths each year of the former. The masculinity of the population is, therefore, steadily declining. Table (ii) shows the comparative masculinity of the European population and of births and deaths for a period of years. Reference to the subjoined table (i) of natural increase shows that for three of the Provinces comprising the Union the excess of male births over male deaths is, generally speaking, less than female births over female deaths. The one exception is the Orange Free State, where the general tendency is the reverse. This is probably accounted for by the fact that this Province is almost entirely agricultural in character, and that, owing to the absence of hazardous industrial occupations, the risk of death to male life is very little greater than to female life.

The total excess of births over deaths of Europeans from the date of the constitution of the Union to the 31st December, 1924, was approximately 366,000.

(i) **NATURAL INCREASE—EUROPEAN POPULATION, UNION, 1911 TO 1925.**

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1911–15*	29,204	29,542	4,100	4,744	25,442	28,318	9,001	8,789	67,747	71,393	139,140
1916–20*	23,433	24,349	3,415	4,370	22,588	25,743	7,304	7 277	56,740	61,739	118,479
1921...	5,421	5,548	837	1,123	5,288	5,734	1,686	1,810	13,232	14,215	27,447
1922...	5,920	5,903	945	1,036	5,035	5,871	1,632	1,737	13,532	14,547	28,079
1923...	5,800	5,919	867	952	4,626	5,205	1,726	1,648	13,019	13,724	26,743
1924...	5,991	5,999	794	1,030	4,710	5,098	1,625	1,596	13,120	13,723	26,843
1925...	5,758	5,698	899	1,078	5,288	5,834	1,751	1,734	13,696	14,344	28,040

* For annual figures, see previous issues of this *Year Book*.

(ii) COMPARATIVE MASCULINITY* OF POPULATION, BIRTHS, AND DEATHS—UNION, 1911 AND 1915 TO 1924.

Heading.	1911. (Census.)	1915.	1916.	1917.	1918.† (Census.)	1919.	1920.	1921. (Census.)	1922.	1923.	1924.
Estimated mean population	115·4	111·7	110·8	108·5	105·2	108·3	106·9	106·0	105·7	104·8	104·6
Births	107·1	106·9	105·6	109·9	107·9	108·0	107·5	104·9	105·4	105·0	107·2
Deaths (crude ratio)	133·3	130·4	130·3	127·7	145·5	129·4	130·5	129·0	134·0	125·3	130·8
Relative male mortality ‡	115·1	116·8	117·5	116·2	133·3	120·0	122·1	121·7	126·8	119·6	125·1

* Number of males to each 100 females.
† Result of Census of Europeans taken 5th May, 1918, excluding male absentees.
‡ Ratio of death rate of males to death rate of females.

6. **Births in Urban and Rural Areas.**—The distribution of births in the urban centres and rural districts of the Union is shown in the following statement for a series of years. The table thus affords a ready means of comparison between the registrations in the towns and the country districts. The figures show that the births recorded in the former areas mark an excess over those recorded in the latter. This method of tabulating births according to the area of registration tends to show higher urban rates than is actually the case, as many rural residents come into the towns for accouchement. Under the laws in force prior to January, 1924, it was not possible to adjust the registrations according to the area of residence of the parents, but with the introduction of consolidating legislation in that year, a system of transfers to the area of residence of the parents was instituted and the following table shows for the year 1924 the urban and rural births adjusted accordingly. It will be seen that the urban rate is reduced by 3·40 per 1,000 and the rural rate increased by 4·59.

The detailed tabulation of birth statistics from 1st January, 1925, will be by area of residence only.

BIRTHS REGISTERED IN URBAN AND RURAL AREAS—EUROPEANS, UNION, 1911 TO 1925.

Year.	Urban Areas.				Rural Areas.				Total Persons.	General Birth Rate per 1000.
	Male.	Female.	Persons.	Birth Rate per 1000.	Male.	Female.	Persons.	Birth Rate per 1000.		
(i) AREA OF REGISTRATION.										
1911–15*	58,563	56,233	114,796	32·90	47,621	44,287	91,908	29·12	206,704	31·11
1916–20*	62,204	58,003	120,207	30·47	45,007	41,455	86,462	26·07	206,669	28·56
1921	13,297	12,589	25,886	30·43	8,867	8,549	17,416	25·92	43,302	28·44
1922	13,031	12,397	25,428	28·98	8,949	8,455	17,404	25·64	42,832	27·52
1923	12,535	11,865	24,400	27·14	9,071	8,710	17,781	26·12	42,181	26·70
1924	12,892	12,053	24,945	26·98	9,015	8,386	17,401	25·35	42,346	26·29
1925	13,521	12,713	26,234	27·22	8,887	8,290	17,177	25·50	43,411	26·51
(ii) AREA OF RESIDENCE.										
1924	11,295	10,505	21,800	23·58	10,612	9,934	20,546	29·94	42,346	26·29
1925	11,501	10,819	22,320	23·16	10,907	10,184	21,091	31·31	43,411	26·51

* For annual figures, see previous issues of this *Year Book*.

7. **Plural Births.**—The number of plural births recorded during the year 1924 was 531, There were six cases of triple births. The number of each sex born alive was : 523 males and 515 females.

8. **Illegitimate Births Registered.**—The total number of illegitimate births amongst the European population registered during a series of years is shown in the following table. Figures for earlier years, both in this and the succeeding table, will be found in previous issues of this *Year Book* :—

(i) TOTAL ILLEGITIMATE BIRTHS REGISTERED IN THE UNION—EUROPEANS, 1918 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1918.....	557	52	266	59	934
1919.....	553	52	276	44	925
1920.....	519	47	273	52	891
1921.....	486	43	296	47	872
1922.....	593	44	278	57	972
1923.....	559	50	322	70	1,001
1924.....	593	76	339	65	1,073
1925.....	609	78	354	77	1,118

(ii) *Illegitimate Birth Rates.*—The table below shows the number of illegitimate births as a percentage of the total number of births registered in urban and rural areas respectively. The average shows the ratio of illegitimate births to be slightly more than 3 in every 100 in the towns and approximately 3 in every 200 in the country districts.

The Cape Province has consistently returned a higher percentage of illegitimate births in both urban and rural areas than any other Province.

The total percentage for the whole Union was 2·21 in 1913, 2·19 in 1914, 2·32 in 1915, 2·24 in 1916, and 2·31 in 1917. These percentages compare favourably with the rates as published by other Dominions and foreign countries.

PERCENTAGE OF ILLEGITIMATE BIRTHS TO TOTAL BIRTHS—EUROPEANS, 1918 TO 1925.

Year.	Cape.		Natal.		Transvaal.		Orange Free State.		Union.		
	Urban.	Rural.	Urban.	Rura.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Total.
1918.....	4·36	1·59	2·37	0·53	2·40	0·42	1·97	0·41	3·15	0·96	2·25
1919.....	4·54	1·80	2·43	0·51	2·50	0·65	1·44	0·45	3·21	1·13	2·33
1920.....	3·47	1·90	1·95	0·21	2·28	0·57	1·72	0·26	2·69	1·10	2·05
1921.....	3·66	1·38	1·25	1·32	2·38	0·75	1·29	0·47	2·68	1·02	2·01
1922.....	4·18	2·01	1·59	0·66	2·27	0·79	1·80	0·47	2·94	1·29	2·16
1923.....	4·03	1·82	1·67	1·26	2·60	1·26	2·07	0·69	3·06	1·43	2·37
1924.....	4·03	2·04	2·63	1·04	3·05	0·96	1·86	0·72	3·30	1·44	2·53
1925.....	4·95	1·80	2·75	1·19	2·97	1·14	2·69	0·72	3·71	1·38	2·58

The usual method of stating the number of illegitimate births as a proportion of the total births is not entirely satisfactory. The subjoined table shows the illegitimate births in 1921 in relation to the total unmarried European female population of child-bearing age. There is, however, no method of arriving at a correct estimate of this group of the population for any period except that of the census. The figures below are based upon the census figures of 1921 and the rates for the census of 1918 are inserted for comparison. The table also shows the legitimate birth rate in relation to the married European female population between the ages of 15 and 45 years.

ILLEGITIMATE AND LEGITIMATE BIRTHS PER 1,000 OF THE UNMARRIED AND MARRIED FEMALE POPULATION BETWEEN THE AGES OF 15 AND 45 YEARS—EUROPEANS, CENSUS, 1921.

Province.	Unmarried Female Population, 1921.	Illegitimate Births, 1921.	Rate per 1000.		Married Female Population, 1921.	Legitimate Births, 1921.	Rate per 1000.	
			1921.	1918.			1921.	1918.
Cape of Good Hope.....	71,738	486	6·77	8·32	76,978	17,576	228·32	231·47
Natal.....	14,419	43	2·98	4·25	18,134	3,327	183·47	175·37
Transvaal.....	45,402	296	6·52	7·30	73,626	16,286	221·20	221·42
Orange Free State.....	15,994	47	2·94	4·41	24,786	5,241	221·45	197·06
UNION.....	147,553	872	5·91	7·24	193,524	42,430	219·25	212·80

§ 3. Deaths.

1. **Deaths Registered.**—The total number of deaths registered during the period 1st January, 1911, to 31st December, 1924, of (*a*) Europeans and (*b*) non-Europeans is shown in the subjoined tables. As is the case in regard to the number of births registered the fluctuations in the figures for the Natal Province in respect of non-European deaths are caused by the inclusion of registrations of deaths of Indians in 1912, and native registrations also in 1913 and later years, none of which events were previously recorded. The *Births and Deaths Registration Law* of the Orange Free State did not apply to natives and coloured persons.

In all the tables in this section the figures for the Natal Province prior to the year 1914 include persons of "coloured" or mixed race as well as Europeans, the number of coloured persons, however, being small.

TOTAL NUMBER OF DEATHS REGISTERED, 1911 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
					Number.	Annual Rate.
(*a*) EUROPEANS.						
1911–15*...	31,555	5,120	23,624	7,270	67,569	10·16
1916–20*...	40,021	6,834	31,248	10,087	88,190	12·13
1921.....	7,093	1,410	5,560	1,792	15,855	10·41
1922.....	6,425	1,313	5,464	1,551	14,753	9·48
1923.....	6,577	1,410	5,788	1,663	15,438	9·77
1924.....	6,740	1,586	5,479	1,698	15,503	9·62
1925.....	6,910	1,532	5,226	1,703	15,371	9·39
(*b*) NON-EUROPEANS (PARTIAL REGISTRATION).						
1911–15*...	150,792	30,117	49,189	—	230,098	—
1916–20*...	222,336	86,890	50,322	2	359,550	—
1921.....	34,445	18,473	9,210	5	62,133	—
1922.....	29,577	14,753	8,541	44	52,915	—
1923.....	30,715	14,048	9,682	—	54,445	—
1924.....	27,262	6,111	9,416	1,920	44,709	—
1925.....	26,094	4,462	8,434	2,191	41,181	—

* For annual figures, see previous issues of this *Year Book*.

2. **Deaths Classified as to Sex.**—The subjoined tables give the numbers of deaths of Europeans, male and female, registered in the Union and in each Province for a period of years :—

DEATHS REGISTERED—EUROPEAN, MALE AND FEMALE, UNION, 1911 TO 1925.

Year.	Cape of Good Hope.*		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1911–15†.....	17,275	14,280	3,029	2,091	14,170	9,454	3,967	3,303	38,441	29,128
1916–20†.....	22,289	17,732	4,121	2,713	18,477	12,771	5,584	4,503	50,471	37,719
1921.....	3,848	3,245	846	564	3,258	2,302	980	812	8,932	6,923
1922.....	3,510	2,915	766	547	3,299	2,165	873	678	8,448	6,305
1923.....	3,593	2,984	809	601	3,348	2,440	837	826	8,587	6,851
1924.....	3,699	3,041	961	625	3,190	2,289	937	761	8,787	6,716
1925.....	3,766	3,144	917	615	3,067	2,159	962	741	8,712	6,659

* Figures include deaths "At Sea."
† For annual figures, see previous issues of this *Year Book*.

3. **Crude Death Rate.**—The simplest measure of mortality is the computation of the number of deaths per 1,000 of the population. This is known as the "crude" death rate, and furnishes a useful index to the healthiness or otherwise of the climate of the country and the condition of life of the community.

The records from the establishment of the Union up to 1917 show a fairly constant death rate, and the fluctuation in the figures was practically negligible. During that period there was indeed a slight tendency for the rate to improve; but subsequently the rate increased. The death rate for the whole population in the Orange Free State and the infantile mortality rate in Natal have been consistently lower than in the rest of the Union. The year 1918 was generally an exceptional one, owing to the heavy mortality caused by the influenza epidemic which broke out in the latter half of the year. The rates shown hereunder have been recalculated upon revised estimates of population according to the Censuses of 1918 and 1921 (*vide* paragraph 4 hereunder).

Figures for earlier years will be found in previous issues of this *Year Book*.

(i) CRUDE GENERAL DEATH RATES, EUROPEANS, 1920 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1920.....	11·40	10·83	11·30	9·60	11·09
1921.....	10·89	10·26	10·20	9·49	10·41
1922.....	9·69	9·23	9·77	8·09	9·48
1923.....	9·82	9·65	10·15	8·59	9·77
1924.....	9·91	10·52	9·39	8·65	9·62
1925.....	10·04	9·88	8·78	8·58	9·39

(ii) MALE AND FEMALE DEATH RATES, EUROPEANS, 1920 TO 1924.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1920.....	12·26	10·52	12·61	8·90	12·71	9·74	9·88	9·30	12·15	9·95
1921.....	11·67	10·09	11·96	8·46	11·43	8·86	10·01	8·94	11·40	9·37
1922.....	10·46	8·91	10·50	7·89	11·31	8·09	8·76	7·35	10·56	8·33
1923.....	10·63	8·99	10·86	8·38	11·33	8·89	8·33	8·86	10·62	8·88
1924.....	10·78	9·02	12·55	8·42	10·58	8·12	9·19	8·06	10·67	8·53
1925.....	10·84	9·22	11·68	8·04	9·99	7·49	9·31	7·78	10·42	8·31

4. **Specific Death Rates.**—The term Specific Death Rate used in the following table designates the rate of mortality per 1,000 of the population at specified ages. In previous editions of this *Year Book* the rates were based upon estimates which were calculated on the assumption that the numbers of each sex at each period of age were in the same ratio as disclosed at the preceding census. The following methods have now been adopted. For intercensal periods estimates are based on proportional ratios between two censuses, and for post-censal years estimates are adjusted according to the records of births, deaths, and migration, which are now available in greater detail than hitherto. The figures shown in the table for the years subsequent to 1918 are revised figures computed on the new basis. The rates have been calculated from the year 1912 and were published in previous editions of this *Year Book*. The following table shows the rates for five years from 1920:—

SPECIFIC, STANDARDIZED, AND CRUDE DEATH RATES—UNION, 1920 TO 1925.

Year.	All Ages.		Deaths per 1,000 Living, in Age Groups.										
	*Standardized.	Crude.	0–4.	5–9.	10–14.	15–19.	20–24.	25–34.	35–44.	45–54.	55–64.	65–74.	75 and over.
Male.													
1920.	13·10	12·15	31·84	2·69	2·32	3·00	4·14	4·91	8·50	13·58	26·32	54·19	134·24
1921.	12·30	11·40	27·25	2·35	2·02	3·14	4·50	5·08	8·56	13·18	24·67	52·57	126·49
1922.	11·35	10·56	24·45	2·14	1·86	2·72	3·91	4·85	7·30	13·68	22·94	48·99	117·57
1923.	11·34	10·62	25·19	2·43	1·89	2·96	3·61	4·25	6·98	12·70	23·13	52·33	116·28
1924.	11·33	10·67	25·40	2·26	1·67	2·88	4·01	3·69	7·35	12·45	23·50	50·03	122·95
1925.	11·02	10·42	24·06	2·39	1·59	2·48	3·70	3·98	6·97	11·67	23·25	47·17	130·39
Female.													
1920.	11·03	9·95	28·05	2·57	2·22	2·54	4·06	4·90	6·54	8·72	18·04	45·65	126·48
1921.	10·45	9·37	23·82	2·04	1·96	2·50	3·84	5·49	5·83	11·19	19·53	40·85	115·59
1922.	9·35	8·33	20·92	2·00	1·61	2·42	3·09	3·92	5·62	8·84	16·82	42·23	112·66
1923.	9·89	8·88	23·13	2·44	1·74	1·98	3·14	4·04	5·69	9·19	18·09	45·53	114·06
1924.	9·44	8·53	21·99	2·26	1·78	2·15	2·53	3·80	5·56	8·65	16·97	43·48	112·40
1925.	9·17	8·31	20·39	1·79	1·53	2·03	2·90	3·85	5·57	8·50	17·24	40·72	119·84
Persons.													
1920.	12·15	11·09	29·99	2·63	2·27	2·77	4·10	4·91	7·61	11·45	22·63	50·27	130·37
1921.	11·43	10·41	25·57	2·20	1·99	2·82	4·16	5·29	7·30	12·31	22·37	47·21	121·08
1922.	10·41	9·48	22·73	2·07	1·74	2·57	3·49	4·38	6·51	11·54	20·19	45·90	115·12
1923.	10·65	9·77	24·18	2·43	1·82	2·47	3·37	4·15	6·36	11·14	20·86	49·21	115·17
1924.	10·44	9·62	23·73	2·26	1·73	2·51	3·25	3·74	6·49	10·76	20·54	47·05	117·74
1925.	10·15	9·39	22·26	2·10	1·56	2·26	3·30	3·91	6·19	10·25	20·52	44·22	125·26

* Calculated on the "Standard Million" of the total population of undistinguished sex of England and Wales—Census, 1901 [*vide* paragraph 7 hereunder].

5. **Specific Death Rates according to Marital Condition.**—The following table shows the death rates per 1,000 persons at each degree of marital condition at certain age groups. The table shows that from the age of twenty-five years onwards, when the majority of men begin to marry, the death rates for married men were considerably lower than for single men. On the other hand, the specific death rates for married females are higher at each age group from fifteen to forty-four years than for single females. After the child-bearing period the rates are generally a little higher for single females. The rates for widowed and divorced persons are of interest, but are liable to considerable fluctuation owing to the small numbers upon which the calculations are made.

Owing to difficulties in estimating population in groups according to marital condition for intercensal years, computations showing the effect of marital condition on specific death rates cannot be calculated for periods other than a census year. The average mortality, however, in each marital condition for three years—one year preceding and one year following a census year—will probably give a better index to the effect of marital condition on death rates, and will eliminate any excess mortality in one group that may be due to some peculiar seasonal variation. The figures in the table have been calculated on this basis for the years 1920 to 1922.

DEATHS PER 1,000 IN SPECIFIC AGE GROUPS ACCORDING TO MARITAL CONDITION, BASED UPON 1921 CENSUS RESULTS AND AVERAGED ON DEATHS OCCURRING IN THE UNION DURING YEARS 1920–22.

Age Groups.	Male.			Female.		
	Single.	Married.	Widowed and Divorced.	Single.	Married.	Widowed and Divorced.
All ages	9·4	12·9	42·5	7·7	8·4	30·5
15–19	3·0	15·7	66·7	2·3	5·6	18·9
20–24	4·1	4·6	23·0	3·0	4·4	5·0
25–29	5·3	3·6	6·1	4·2	4·6	4·1
30–34	7·3	4·8	9·8	4·6	5·3	4·2
35–39	11·8	6·0	9·2	5·0	6·0	6·5
40–44	16·4	8·0	12·1	8·4	6·8	6·8
45–49	22·5	10·2	16·6	9·8	7·5	7·8
50–54	30·4	13·3	20·9	14·0	10·5	10·3
55–59	32·7	19·4	26·7	14·8	15·6	16·1
60–64	55·4	26·7	29·2	25·8	22·3	20·0
65–69	58·3	40·7	50·3	31·2	34·3	37·1
70–74	103·0	61·3	71·8	53·3	53·1	57·7
75–79	114·2	96·1	117·3	81·4	82·5	87·4
80 years and over	167·7	148·3	185·3	176·9	167·3	169·5
15 years and over	7·4	12·9	42·5	4·3	8·4	30·5

6. **Death Rates of Various Countries.**—The subjoined table gives the crude death rates of various countries and the States of the British Commonwealth.

DEATH RATES PER 1,000—VARIOUS COUNTRIES.

Country.	Year.	Crude Death Rate.	Country.	Year.	Crude Death Rate.
New Zealand	1924	8·3	North Ireland	1923	14·7
New South Wales	1924	9·3	Argentine	1921	14·8
Union of South Africa	1924	9·6	Newfoundland	1920	16·2
Canada	1924	9·8	France	1923	17·0
Australia	1923	9·9	Esthonia	1922	17·1
Netherlands	1923	9·9	Italy	1921	17·5
Denmark	1923	11·3	Czecho-Slovakia	1922	17·7
Norway	1923	11·5	Hungary	1923	19·2
United Kingdom	1923	11·9	Spain	1923	20·7
U.S.A.	1922	11·9	Serbia	1912	21·1
Sweden	1924	12·0	Bulgaria	1920	21·2
Uruguay	1921	12·2	Japan	1922	22·3
Belgium	1923	13·0	Portugal	1920	22·5
Irish Free State	1923	13·3	Roumania	1922	22·8
Latvia	1923	13·4	Jamaica	1922	22·9
Prussia	1921	13·7	Chili	1922	28·4
Germany	1923	13·9	British India	1921	29·9
Scotland	1924	14·4	European Russia	1921	38·8

7. **Standardized Death Rate.**—The usual and simplest method of calculating the death rate of a country is by expressing the number of deaths as a proportion of each thousand of the estimated mean population, i.e. the *crude* death rate. Any error in the computation that may occur is most likely to arise through an over or under estimate of the population; but in a country like the Union, where a census is taken quinquennially, the population may be estimated for intercensal years with a fair degree of accuracy. An error may also occur if the system of registration of deaths is imperfect. Errors due to these two causes, however, will probably be negligible. Notwithstanding the criticism that has often been levelled at crude death rates, they are reliable and useful rates for most practical purposes. *Standardized* rates have a special and limited application.

A note on crude and standardized rates is contained in the sixth issue of this *Year Book*.

The *standardized* death rates for the Union given in the following table are calculated on the *standard million* of England and Wales and the rates are therefore adjusted for both age and sex distribution of the population.

For the purposes of comparison the *crude* death rate has also been inserted.

CRUDE AND STANDARDIZED DEATH RATES PER 1,000 OF EUROPEANS, UNION, 1915 TO 1924.

Heading.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Male—										
Crude.....	11·05	11·02	10·99	19·50	12·91	12·15	11·40	10·56	10·62	10·67
Standardized*...	11·98	12·10	11·99	20·65	13·91	13·10	12·30	11·35	11·34	11·33
Female—										
Crude.....	9·46	9·38	9·46	14·63	10·76	9·95	9·37	8·33	8·88	8·53
Standardized*...	10·42	10·34	10·53	15·69	11·86	11·03	10·45	9·35	9·89	9·44
Persons—										
Crude.....	10·30	10·24	10·26	17·17	11·88	11·09	10·41	9·48	9·77	9·62
Standardized*...	11·39	11·30	11·06	18·42	12·95	12·15	11·43	10·41	10·65	10·44

* Standard population of England and Wales of undistinguished sex, Census 1901.

8. **Standardized Death Rates for Towns and Sub-Divisions of the Union.**—The standardized death rates for the Union given in this book are calculated on the *standard million* of the population of England and Wales, 1901, and thus afford a direct comparison with the death rates of that country and with other countries using the same standard. An international standard, while useful for comparing the rates of one country with another, is, however, unsuitable when adjusted or standardized rates are required for local areas within a country. For this reason the population of the Union as enumerated at the Census of 1921 has been chosen as the standard for computing standardized rates for the Provinces, the largest towns, urban and rural areas, and the regional divisions into which the Union has been divided for the purposes of vital statistics. These rates enable the relative salubrity of each town or area to be compared on the same basis, each with the other or with the Union as a whole. In other words, the crude death rate of (say) Johannesburg is standardized for differences in age and sex constitution for comparison with the rate for (say) Cape Town with a similar age and sex distribution of its population, any difference in the two standardized rates being thus due to causes other than a preponderance of one sex or to a particular age group.

The method followed is known as the *indirect* or *factorial* method of standardization and is identical with that used by the Registrar-General of England and Wales for many years. Briefly, the method of computation is as follows: The mean annual death rates at certain age groups for the whole Union are applied to the population at the corresponding age groups as enumerated at the Census of 1921 for the town or area for which the standardizing factor is required. The results give the number of deaths that would be expected in a year if the rate of mortality of each age group were the same as that of the Union as a whole. From the sum of the products and the total population of the area or town in question is computed the *index death rate.* This index death rate indicates the degree to which the population of that particular area is favourably or unfavourably constituted. In the same manner an index death rate is computed for the Union and the relation of this rate to the index death rate of any other area or town gives the required standardizing factor.

The variations in the ages and sex constitution of the populations of the largest towns and regional divisions as revealed at the Census 1921 were shown in the series of graphs following Chapter III in *Year Book* No. 6. The graphs were of two types, one showing the proportionate distribution of each sex at quinquennial age groups compared with the curve of distribution of persons of undistinguished sex for the Union as a whole, and the other the percentage deviation of the number of males and females from each 100 persons in the Union population at corresponding age groups.

A comparison of these graphs with the crude and standardized death rates will indicate the reasons for the raising or lowering of the latter rate from the former.

The following table gives the standardized death rates for each of the Provinces of the Union during a period of years, on the basis of the Union population of undistinguished sex, Census of 1921. Figures for earlier years will be found in previous issues of this *Year Book*:—

STANDARDIZED DEATH RATES*—EUROPEANS, 1920 TO 1925.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.
	Standardized.	Crude.	Standardized.	Crude.	Standardized.	Crude.	Standardized.	Crude.	Crude.
MALE.									
1920..	11·64	12·26	12·49	12·61	12·96	12·71	9·69	9·88	12·15
1921..	11·08	11·67	11·84	11·96	11·66	11·43	9·81	10·01	11·40
1922...	9·94	10·46	10·40	10·50	11·54	11·31	8·58	8·76	10·56
1923...	10·10	10·63	10·75	10·86	11·56	11·33	8·16	8·33	10·62
1924...	10·24	10·78	12·42	12·55	10·79	10·58	9·01	9·19	10·67
1925..	10·30	10·48	11·56	11·68	10·19	9·99	9·12	9·31	10·42
FEMALE.									
1920..	10·21	10·52	8·90	8·90	10·42	9·74	9·58	9·30	9·95
1921..	9·79	10·09	8·46	8·46	9·48	8·86	9·21	8·94	9·37
1922..	8·64	8·91	7·89	7·89	8·66	8·09	7·57	7·35	8·33
1923...	8·72	8·99	8·38	8·38	9·51	8·89	9·13	8·86	8·88
1924...	8·75	9·02	8·42	8·42	8·69	8·12	8·30	8·06	8·53
1925..	8·94	9·22	8·04	8·04	8·01	7·49	8·01	7·78	8·31
PERSONS.									
1920..	10·95	11·40	10·72	10·83	11·86	11·30	9·60	9·60	11·09
1921..	10·45	10·89	10·16	10·26	10·71	10·20	9·49	9·49	10·41
1922..	9·30	9·69	9·14	9·23	10·24	9·77	8·09	8·09	9·48
1923...	9·43	9·82	9·55	9·65	10·66	10·15	8·59	8·59	9·77
1924...	9·51	9·91	10·41	10·52	9·86	9·39	8·65	8·65	9·62
1925..	9·64	10·04	9·78	9·88	9·17	8·78	8·58	8·58	9·39

* Standard population of the Union of undistinguished sex, Census 1921.

9. **Deaths in Urban and Rural Areas.**—The registration of deaths of Europeans in urban centres and rural districts of the Union during a period of years is shown in table (i) hereunder. The number of deaths registered in urban areas is largely in excess of the number registered in rural areas. The columns giving the urban and rural death rates show that the urban rate is consistently higher than the rural rate. This is partly due to the fact that the deaths of many rural inhabitants occur in the larger towns, especially within public and private institutions.

Prior to 1924, it was not possible to adjust the registrations according to area of residence. Under the consolidating legislation, Act No. 17 of 1923, a system of transfers has been made possible, and Table (i) shows for the year 1924 urban and rural deaths adjusted accordingly. The urban rate is reduced by 1·74 per thousand and the rural rate increased by 2·35 per thousand.

From the 1st January, 1925, the tabulation of death statistics will be mainly by area of residence. The results of the Census of 1921 reveal the fact that the age and sex distribution of the population of urban areas is more favourable to a low crude death rate than that of rural areas. Allowance for this divergence in population is, therefore, made by computing standardizing factors based on the age and sex distribution of the standard population of the Union as it was shown to have been constituted at the third Union census in 1921.

(i) DEATHS REGISTERED IN URBAN AND RURAL AREAS—EUROPEANS, UNION, 1911 TO 1925.

Year.	Urban Areas.					Rural Areas.					General Death Rates per 1,000.
	Male.	Female.	Persons.	Death Rate per 1000.		Male.	Female.	Persons.	Death Rate per 1000.		
				Crude.	Stand.*				Crude.	Stand.*	
(i) AREA OF REGISTRATION.											
1911–15†	24,821	17,850	42,671	12·23	12·48	13,620	11,278	24,898	7·85	7·61	10·16
1916–20†	33,696	24,346	58,042	14·70	15·00	16,775	13,373	30,148	9·06	8·79	12·13
1921...	5,906	4,502	10,408	12·24	12·48	3,026	2,421	5,447	8·11	7·86	10·41
1922...	5,848	4,205	10,053	11·46	11·69	2,600	2,100	4,700	6·93	6·72	9·48
1923...	5,655	4,449	10,104	11·24	11·46	2,932	2,402	5,334	7·83	7·60	9·77
1924...	5,788	4,364	10,152	10·98	11·20	2,999	2,352	5,351	7·80	7·57	9·62
1925...	5,702	4,352	10,054	10·43	10·64	3,010	2,307	5,317	7·89	7·65	9·39
(ii) AREA OF RESIDENCE.											
1924...	4,474	4,064	8,538	9·24	9·42	4,313	2,652	6,965	10·15	9·85	9·62
1925...	5,423	4,122	9,545	9·90	10·10	3,289	2,537	5,826	8·65	8·39	9·39

* Based on standard population of Union of undistinguished sex, Census 1921.
† For annual figures see previous issues of this *Year Book*.

Deaths in Large Urban Centres.—Since the beginning of the year 1921, monthly returns of births and deaths have been collected from the nine largest municipalities in the Union, and the yearly registrations and death rates are given in table (ii) hereunder. The monthly rates are not shown in the table as it is found that, owing to the smallness of the figures upon which the rates are calculated, the latter show widely-fluctuating results from month to month, due to vital events in one month not being registered in the month of occurrence, or within the period prescribed by law.

The varying rates shown for the non-European population are due to several causes, the chief of which, except in the case of the first three towns, are the migratory nature of the populations, the unequal sex proportions and the peculiar age distribution due to the absence of young children and old persons. This latter cause is peculiar to the inland towns whose non-European populations are principally Bantu and not, as in the case of the Cape coastal towns, coloured persons of mixed blood who permanently reside in the towns. The particular effects of these population peculiarities are more fully explained in the section on births.

(ii) CRUDE AND STANDARDIZED* DEATH RATES PER 1,000 IN NINE PRINCIPAL TOWNS, 1923 AND 1924.

Town.	European Population. Mean, 1924.	European.					
		1923.			1924.‡		
		Deaths.	Rate.		Deaths.	Rate.	
			Crude.	Standard.		Crude.	Standard.
Cape Town	108,101†	1,207	11·31	11·08	1,056	9·77	9·57
Port Elizabeth	25,683	304	12·10	12·10	288	11·21	11·21
East London	18,345	218	12·18	11·81	164	8·94	8·67
Kimberley	17,653	217	12·29	12·29	218	12·35	12·35
Pietermaritzburg	17,928†	228	12·60	12·10	181	10·10	9·70
Durban	51,933	614	12·16	12·52	569	10·96	11·29
Pretoria	37,084†	489	12·86	14·15	336	9·06	9·97
Johannesburg	159,891	1,849	11·79	12·62	1,797	11·24	12·03
Bloemfontein	18,318†	243	13·24	15·23	162	8·84	10·17

Town.	Non-European.			
	1923.		1924.	
	Deaths.	Crude Rate.	Deaths.	Crude Rate.
Cape Town	2,677	31·93	2,302	27·14
Port Elizabeth	454	34·98	489	37·58
East London	556	40·52	559	39·57
Kimberley	741	34·69	803	37·59
Pietermaritzburg	99	5·48	489	26·79
Durban	—	—	927	18·18
Pretoria	557	20·97	581	21·43
Johannesburg	2,966	21·80	2,892	21·02
Bloemfontein	—	—	888	42·56

* Standardized for age and sex distribution to the standard population of the Union, Census 1921.
† These figures exclude inmates of mental hospitals and, in the case of Pretoria, the leper asylum and central prison.
‡ The deaths include residents who died elsewhere and exclude deaths of non-residents. The amended figure was used to compute the rates.

Death Rates in Various Cities.—The preliminary death rates for the year 1924 in various large cities throughout the world are given in the table hereunder. The rates for the three largest towns of the Union are included for comparison, and it will be observed that for that year the rate for Cape Town was 2·3, Durban 1·1, and Johannesburg 0·9 per 1,000 lower than the rate of London.

(iii) DEATH RATES PER 1,000 OF VARIOUS CITIES, 1924.

City.	Death Rate.	City.	Death Rate.	City.	Death Rate.
Amsterdam	8·9	Birmingham	11·5	Belfast	14·3
Cape Town	9·8	New York	11·8	Edinburgh	14·8
Antwerp	10·3	London	12·1	Warsaw	14·8
Oslo	10·6	Berlin	12·5	Dublin (Registration Area)	15·8
Stockholm	10·9	Liverpool	13·3	Glasgow	16·1
Durban	11·0	Manchester	13·7	Budapest	19·2
Johannesburg	11·2	Paris (Calendar Year)	14·2		

10. **Deaths in Regional Divisions.**—In this chapter, the majority of the figures are tabulated according to the four main administrative areas (Provinces) of the Union. The reason for this is that each Province until 1923 had its own Births and Deaths Registration Law, and tabulation has naturally followed according to the vital events registered under the respective laws. The boundaries of the Provinces follow generally the principal inland rivers or mountain ranges. For the purposes of vital and population statistics the Union has now been sub-divided into six regional divisions arranged as nearly as possible according to climatic conditions. A description of these divisions will be found in Chapter XXIV. These divisions are non-administrative, but each comprises a group of magisterial districts The boundaries, although somewhat arbitrarily drawn, follow closely the different climatic conditions found in the Union due to altitude, varying rainfall, etc. The following table shows the crude death rates for the past four years in each of the divisions. As the age and sex distributions of the several populations differ from each other, and from the distribution of the total Union population, the rates have been standardized to the Union standard population of undistinguished sex as at the Census of 1921, to eliminate differences due to these two causes. For ease of comparison the crude rates for the European population of the Union have been inserted.

DEATH RATES PER 1,000 IN REGIONAL DIVISIONS—EUROPEANS, 1921 TO 1924.

Divisions.	Crude Death Rates.				Standardized Death Rates.			
	1921.	1922.	1923.	1924.	1921.	1922.	1923.	1924.
I. South-Western Coastal	11·34	10·25	10·16	9·97	11·00	9·94	9·86	9·67
II. South Eastern Coastal	10·81	10·09	10·41	10·64	10·59	9·89	10·20	10·43
III. Karroo–Cape Central	10·50	9·34	9·32	10·18	9·77	8·69	8·67	9·47
IV. Highveld	10·14	9·34	9·53	9·49	10·44	9·62	9·82	9·77
V. Cape Thornveld	10·84	8·87	9·17	8·71	10·51	8·60	8·89	8·45
VI. Transvaal Bushveld	7·95	7·31	11·03	6·98	8·03	7·38	11·14	7·05
UNION	10·41	9·48	9·77	9·62	—	—	—	—

11. **Mortality of Each Sex.**—There are two methods of calculating the ratio of deaths of one sex to the other, or of male to female deaths. One is to calculate the actual number of male deaths to each 100 of the actual female deaths registered. The result gives a *crude ratio*, because it does not take into account the sex constitution of the population or, in other words, the relative numbers of each sex exposed. The second method is to calculate the ratio of the death rate of males to the death rate of females. This calculation eliminates the unequal distribution of the sexes in the population and thus reduces the comparison of the mortality of each sex to a *standard*. The results are given in the following tables under the headings *Crude Ratios* and *Standardized* or, as the ratios are calculated on the basis of males to females, *Relative Male Mortality*. This latter method shows at a glance at which ages the number of deaths of males exceeds that of females or *vice versa*. Table (i) and the first portion of table (iii) record the actual number of deaths of males to each 100 deaths of females according to the number of registrations of deaths effected. Tables (ii) and (iii) (*b*) show the relative male mortality for each 100 female deaths on a basis of an equal number of each sex exposed to risk.

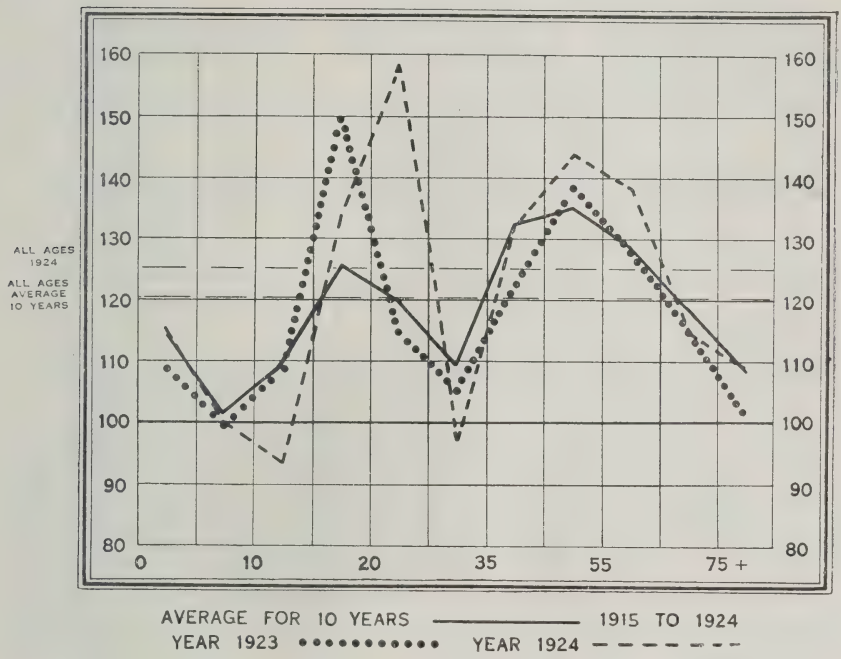
It should be noted that similar figures for the years prior to these shown in the tables will be found in previous issues of this *Year Book*.

Taking the standardized figures as a truer index of sex mortality it will be seen that with few exceptions the number of deaths of males regularly exceeds that of females, the average excess for the years 1915 to 1924 being 21·9 per cent. for all ages. This average is increased slightly owing to the heavy male mortality during the influenza epidemic of 1918, when at ages from 15 years to 44 years the ratio was almost three male deaths to each two female. The figures for the years subsequent to 1918 differ from those previously published, having been recalculated on revised death rates for the reasons given in paragraph 4 of this section.

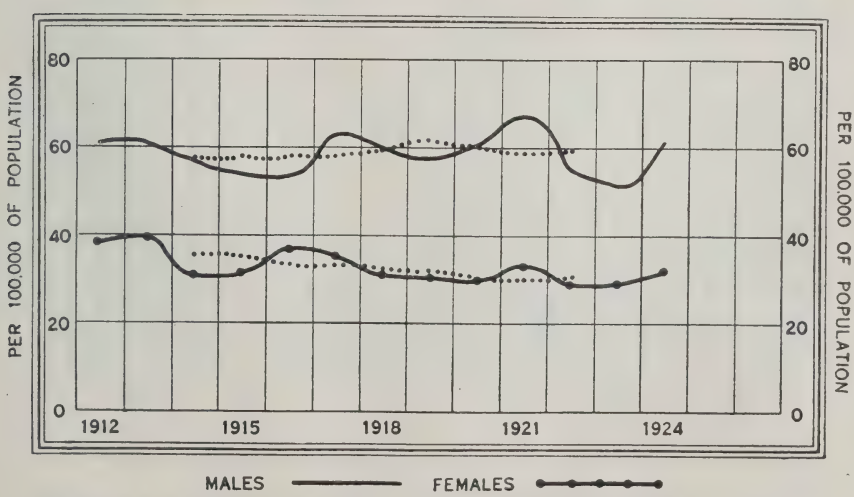
MORTALITY OF EACH SEX (EUROPEANS).—RELATIVE MALE MORTALITY.

(RATIO OF DEATH RATE OF MALES TO DEATH RATE OF FEMALES.)

QUINQUENNIAL AGE GROUPS.



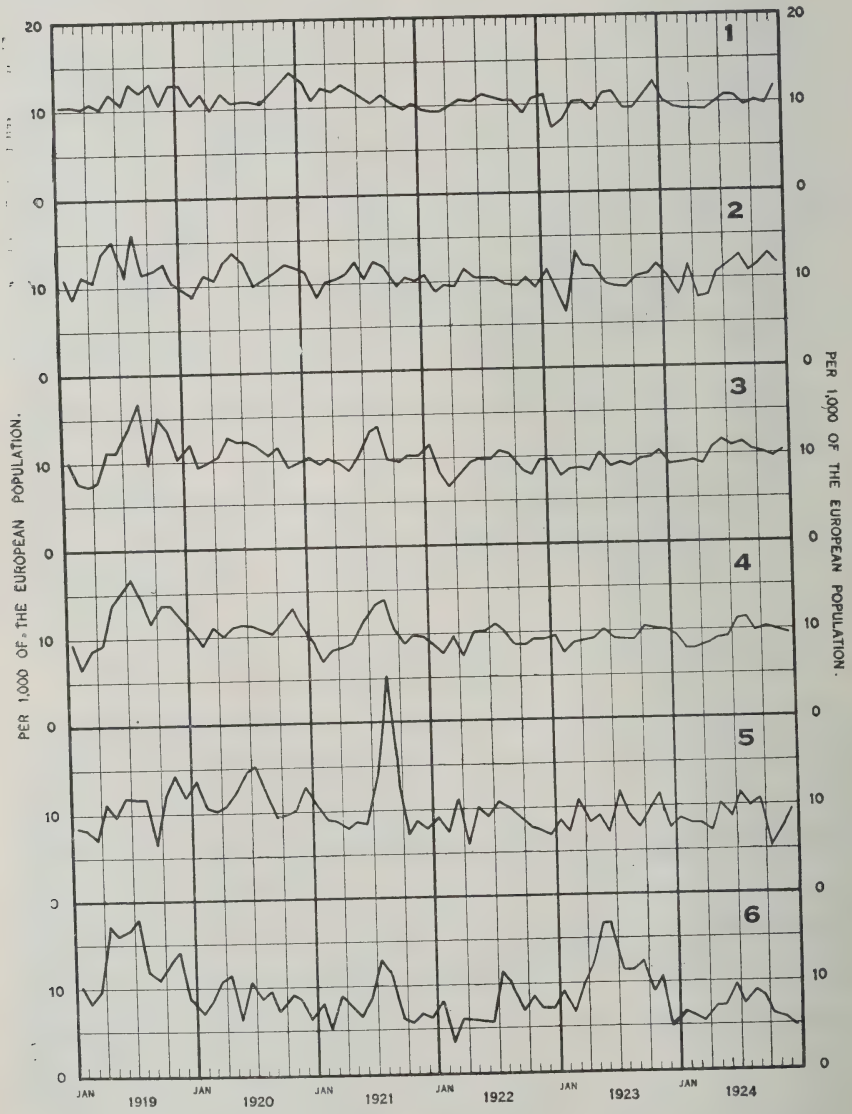
DEATH RATES FROM TUBERCULOSIS PER 100,000 OF THE EUROPEAN POPULATION, 1912 TO 1924.



The dotted lines represent the Average Annual Death Rates computed for overlapping quinquennial periods 1912–16, 1913–17, etc.

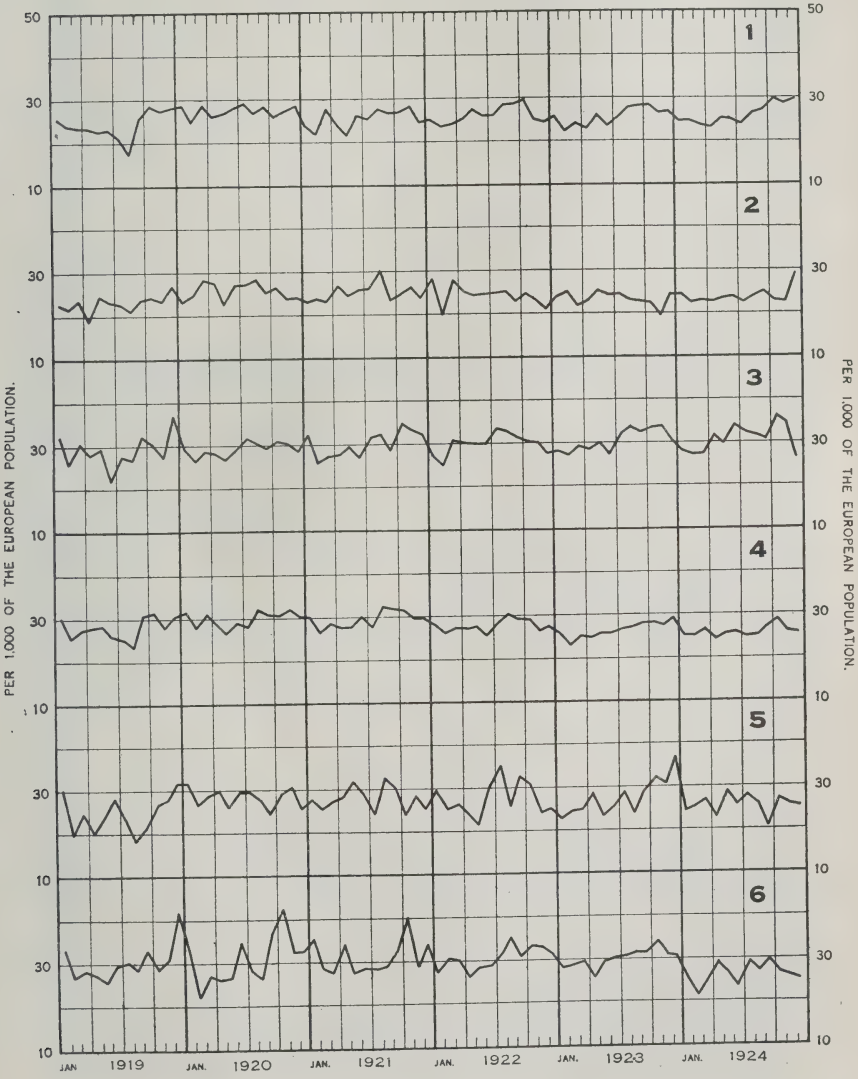
DEATH RATES OF EUROPEANS ACCORDING TO MONTH OF OCCURRENCE (EQUIVALENT ANNUAL RATES) IN SIX REGIONAL DIVISIONS, JANUARY, 1919, TO DECEMBER, 1924.

1. South-Western Coastal.
2. South-Eastern Coastal.
3. Karroo—Cape Central.
4. High Veld.
5. Cape Thorn Veld.
6. Transvaal Bushveld.



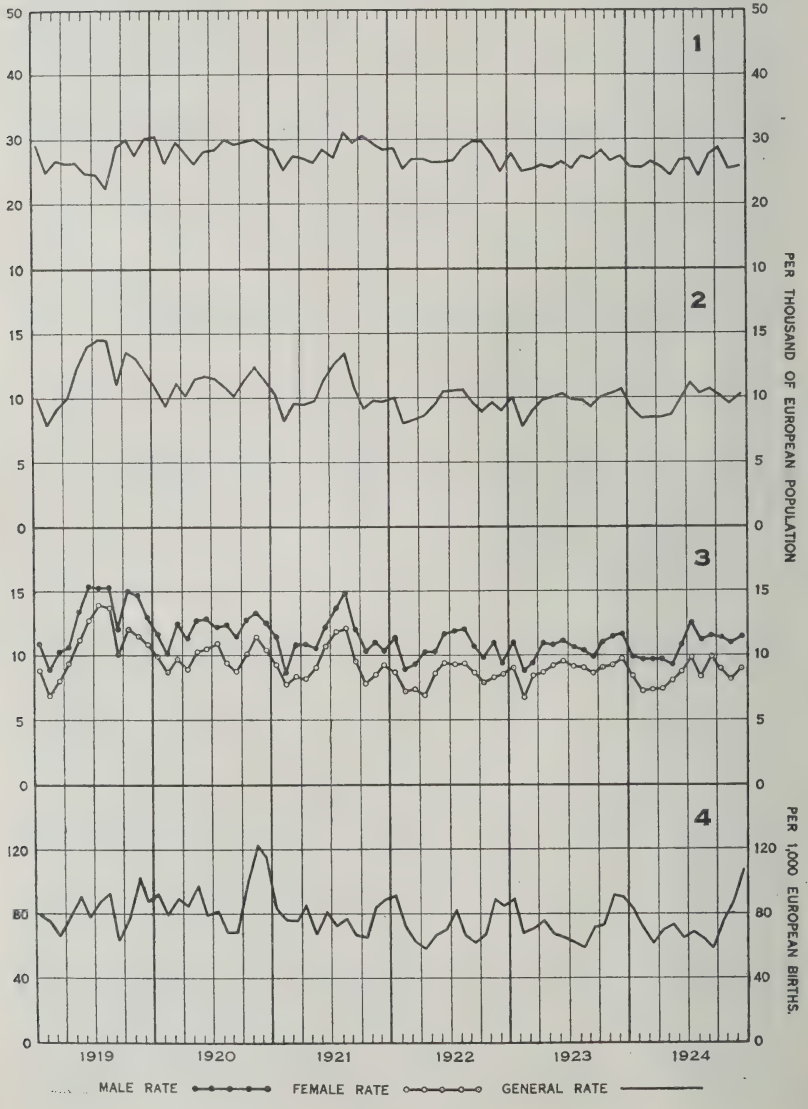
BIRTH RATES OF EUROPEANS REGISTERED ACCORDING TO EACH MONTH OF OCCURRENCE (EQUIVALENT ANNUAL RATES) IN SIX REGIONAL DIVISIONS, JANUARY, 1919, TO DECEMBER, 1924.

1. South-Western Coastal.
2. South-Eastern Coastal.
3. Karroo—Cape Central.
4. High Veld.
5. Cape Thorn Veld.
6. Transvaal Bushveld.



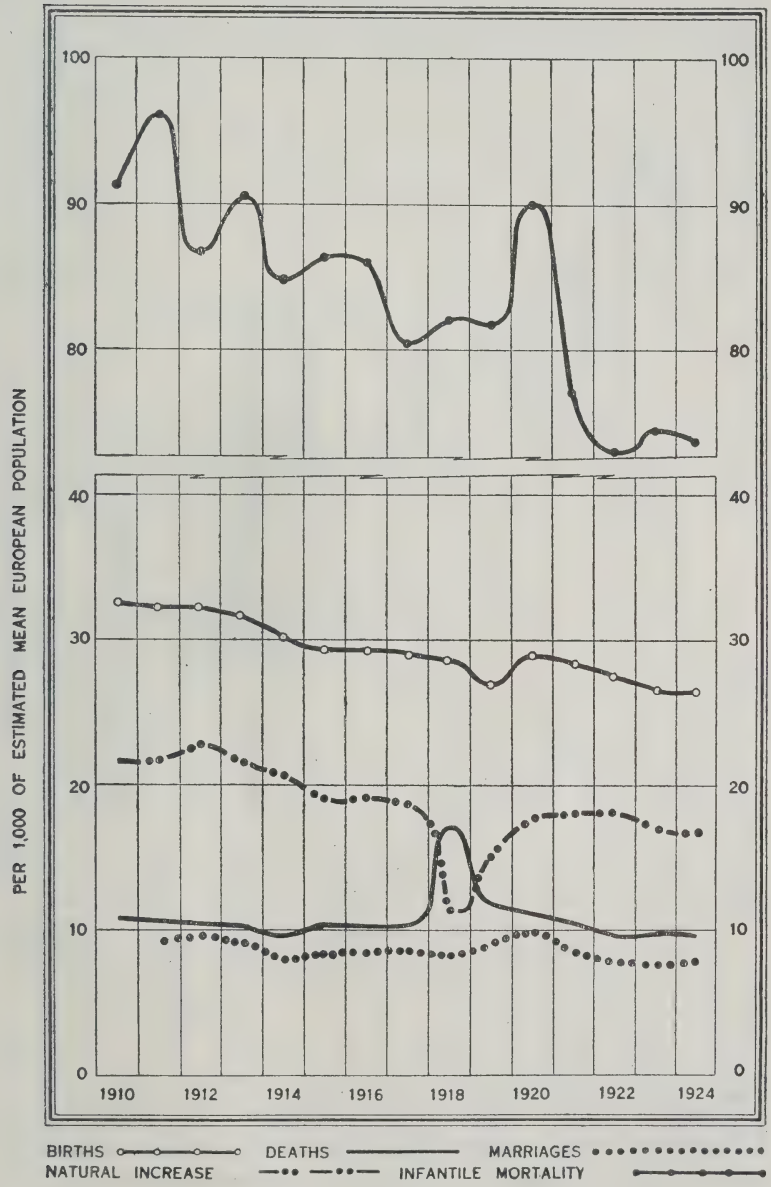
MONTHLY VITAL RATES, UNION, 1919 TO 1924.

1. General Birth Rate.
2. General Death Rate.
3. Male and Female Death Rates.
4. Infantile Mortality Death Rate.



BIRTH, DEATH, MARRIAGE, AND NATURAL INCREASE RATES,* AND INFANTILE MORTALITY RATES,†

EUROPEANS, 1910 TO 1924.

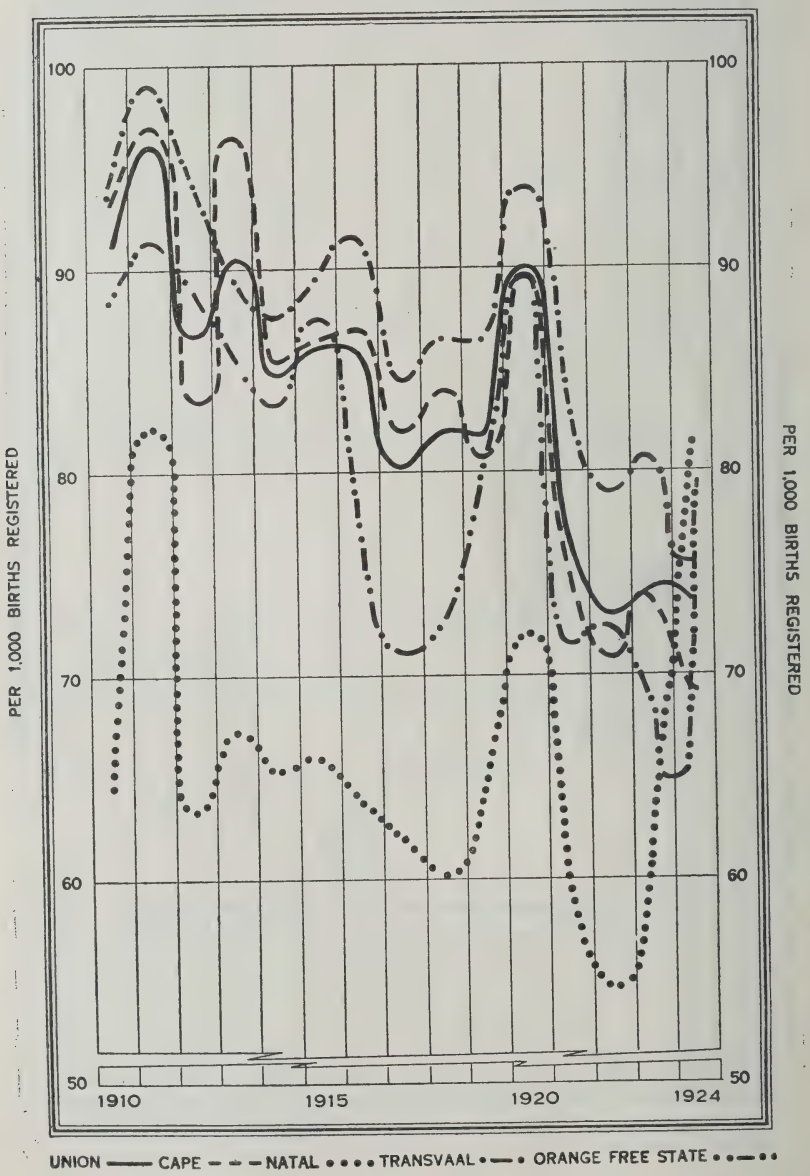


* Birth, death, marriage, and natural increase rates per 1,000 of the estimated mean European population.

† Infantile mortality rates—Deaths of infants under 1 year of age per 1,000 births registered.

INFANTILE MORTALITY RATES—UNION, 1910 TO 1924.

PROPORTION OF DEATHS OF EUROPEANS UNDER ONE YEAR OF AGE PER 1,000 BIRTHS REGISTERED.



In table (ii) below, the excess in the mortality of males manifested itself at all ages throughout the period except ages 5 to 9 in the years 1923 and 1924, and at ages 10 to 14 in the year 1924, when it was less than the female mortality. The average for ten years at the 5 to 9 year age period gives a ratio of 101·8 male deaths to each 100 female deaths.

In table (iii) the masculinity of the deaths in each Province of the Union is shown for the period 1920 to 1924. The first portion of the table gives the crude ratios based on the number of deaths of each sex. As explained above this calculation takes no cognizance of the fact that there were more males than females exposed to risk of death. Had the distribution of the sexes been constantly equal, the resulting standardized mortality of males to each 100 females would have been as shown in the second portion of table (iii) under the heading *Relative Male Mortality.*

The effect of standardizing the sex mortality reduces the ratio of male to female deaths from 131·3 crude to 121·9 standard per annum over a period of ten years. The Transvaal, in which the masculinity of the population is approximately 109 to each 100 females, shows a decline in the sex mortality ratio from 143·9 crude to 128·1 standard. During the past ten years Natal has shown a consistently heavier proportion of male deaths to female deaths than the other Provinces of the Union, except in the year 1922, when it was 6·7 per cent. lower than the Transvaal. An average of 137·2 males die to each 100 females each year in Natal.

(i) MORTALITY OF EACH SEX AT DIFFERENT AGE-PERIODS (CRUDE RATIOS, EUROPEANS)*—UNION, 1920 TO 1924.

Year.	All Ages.	0–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–
1920.....	130·5	118·6	107·9	107·5	116·9	95·3	100·4	155·2	200·0	181·8	139·9	106·8
1921.....	129·0	119·5	118·7	106·2	125·1	107·9	90·8	170·3	150·2	156·4	153·0	111·0
1922.....	134·0	122·6	109·6	118·9	113·8	118·5	119·9	146·4	195·9	167·1	137·8	104·9
1923.....	125·3	113·3	102·2	111·2	151·5	108·2	100·6	134·2	173·2	155·1	135·7	102·9
1924.....	130·8	120·0	103·4	95·8	136·7	151·5	91·9	141·5	179·2	167·2	136·2	111·8
Average 10 years (1915 1924).....	131·3	119·3	104·7	111·6	125·6	116·9	112·8	159·9	173·9	162·9	138·1	108·5

* Number of males to each 100 females.

(ii) MORTALITY OF EACH SEX (STANDARDIZED RATIOS, EUROPEANS)*—UNION, 1920 TO 1924.

Year.	All Ages.	0–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–
1920.....	122·1	113·5	104·7	104·5	118·1	102·0	100·2	130·0	155·7	145·9	118·7	106·1
1921.....	121·7	114·4	115·2	103·1	125·6	117·2	92·5	146·8	117·8	126·3	128·7	109·4
1922.....	126·8	116·9	107·0	115·5	112·4	126·5	123·7	129·9	154·8	136·4	116·0	104·4
1923.....	119·6	108·9	99·6	108·6	149·5	115·0	105·2	122·7	138·2	127·9	114·9	102·0
1924.....	125·1	115·5	100·0	93·8	134·0	158·5	97·1	132·2	143·9	138·5	115·1	109·4
Average 10 years (1915 to 1924)...	121·9	114·3	101·8	108·8	125·8	120·1	109·4	132·5	135·1	129·1	118·4	108·1

* Ratio of death rate of males to death rate of females.

(iii) MORTALITY OF THE SEXES (CRUDE AND STANDARDIZED RATIOS, EUROPEANS)—UNION AND PROVINCES, 1920 TO 1924.

Year.	(*a*) Crude Ratios.					(*b*) Relative Male Mortality.*				
	Union.	Cape.	Natal.	Trans-vaal.	O.F.S.	Union.	Cape.	Natal.	Trans-vaal.	O.F.S.
1920..	130·5	120·1	152·4	144·8	114·8	122·1	116·5	141·7	130·5	106·2
1921..	129·0	118·6	150·0	141·5	120·7	121·7	115·7	141·4	129·0	112·0
1922..	134·0	120·4	140·0	152·4	128·8	126·8	117·4	133·1	139·8	119·2
1923..	125·3	120·4	134·6	137·2	101·3	119·6	118·2	129·6	127·4	94·4
1924..	130·8	121·6	153·8	139·4	123·1	125·1	119·5	149·0	130·3	114·0
Average 10 years (1915 to 1924)..	131·3	121·9	148·7	143·9	120·6	121·9	117·6	137·2	128·1	110·7

* Ratio of death rate of males to death rate of females. This method of calculation eliminates the unequal distribution of the sexes in the population.

12. **Mortality according to Marital Condition.**—The number of deaths during the period 1921 to 1924 according to sex and marital condition is given in the table hereunder. The number of deaths returned with the marital condition unspecified is small and has not been included. The chief value of such a table lies in its relationship to the number of persons living at each degree of marital condition; but unfortunately this information is not available except for a census year. The death rates in each degree of conjugal condition for the census year 1921 are given in paragraph 5, § 3, of this chapter.

DEATHS ACCORDING TO MARITAL CONDITION (EUROPEANS), UNION, 1921 TO 1924.

Age Groups in Years.	Male.				Female.			
	1921.	1922.	1923.	1924.	1921.	1922.	1923.	1924.
NEVER MARRIED.								
Under 15	3,037	2,766	2,866	2,871	2,563	2,280	2,555	2,454
15–19	232	222	255	257	168	173	153	168
20–24	209	198	184	225	96	98	88	69
25–29	162	152	126	105	70	54	55	55
30–34	102	98	82	90	32	34	33	36
35–44	223	180	165	142	51	57	56	65
45–54	208	200	183	208	62	53	52	52
55–64	143	132	139	152	51	54	43	53
65–74	95	90	107	107	34	38	64	65
75 and over	55	44	51	65	49	46	52	64
Unspecified	—	14	—	—	—	8	—	—
All Ages	4,466	4,096	4,158	4,222	3,176	2,895	3,151	3,081
MARRIED.								
Under 15	1	—	—	—	2	—	—	—
15–19	1	1	1	—	19	23	16	20
20–24	46	24	27	27	141	86	104	95
25–29	103	109	106	75	248	177	173	134
30–34	192	199	172	149	275	196	218	219
35–44	625	540	514	575	519	426	434	438
45–54	763	803	780	771	441	429	480	436
55–64	771	751	782	842	444	366	433	411
65–74	708	667	764	757	274	279	328	335
75 and over	440	403	424	489	124	105	134	104
Unspecified	—	—	1	—	—	—	1	—
All Ages	3,650	3,497	3,571	3,685	2,487	2,087	2,321	2,192
WIDOWED AND DIVORCED.								
Under 15	—	—	—	—	1	1	—	—
15–19	1	—	—	—	—	—	—	—
20–24	1	1	—	—	2	5	3	2
25–29	8	4	4	3	9	2	7	9
30–34	10	8	4	5	5	9	7	14
35–44	34	37	28	32	48	29	45	34
45–54	65	74	61	66	87	79	72	102
55–64	121	119	120	115	173	184	206	208
65–74	222	215	237	243	365	411	431	424
75 and over	321	328	331	349	564	598	605	645
Unspecified	—	—	—	—	—	—	—	—
All Ages	783	786	785	813	1,254	1,318	1,376	1,438

13. **Infantile Mortality.**—The deaths and death rates of male and female infants have continued to show a steady improvement, the rate for the Union having decreased in 1924 to the extent of 17·51 per 1,000 births registered since 1910, when it stood at 91·24. The

year 1920, however, showed a set-back. Table (i) gives the relative rates of mortality for each sex and for urban and rural areas. The excess of males born each year has tended to disappear owing to the greater mortality among male infants during early childhood. During the period 1915–24 the excess of infant male deaths over females was 3,957, more than 26 per cent.

The distribution of the rates among the four Provinces shows that Natal, until 1924, when the rate rose to 80·06 from 61·01 the previous year, was consistently the healthiest Province in so far as infant life was concerned, whereas the rate in the Transvaal was almost always the highest. It is interesting to note that since the year 1910 the lowest rate recorded in the Union was during the year 1922. Table (ii) shows the provincial distribution for a period of years.

Figures for earlier years will be found in previous issues of this *Year Book*.

In the ten years 1915–24, an average of 87 out of every 1,000 male children and 73 out of every 1,000 females born in the Union died before attaining the age of one year. The chances of living during the first year of life are therefore greater for female than for male infants, the mortality of males being 1 in every 11 born and of females 1 in every 13 born. In the towns and villages of the Union an average of 88 out of every 1,000 children born died before reaching the age of one year; while in the farming areas of the Union the average number of infantile deaths was 70 out of every 1,000 births registered.

(i) INFANTILE DEATHS—RATE OF INFANTILE MORTALITY (EUROPEANS)—UNION, 1920 TO 1925.

Year.	Registered Deaths under 1 Year.			Infantile Mortality Rate per 1,000 Births Registered.				
	Male.	Female.	Total.	Male.	Female.	Total.	Urban.	Rural.
1920.....	2,168	1,745	3,913	96·30	83·37	90·07	98·06	78·09
1921.....	1,864	1,474	3,338	84·10	69·73	77·09	83·75	67·18
1922.....	1,758	1,365	3,123	79·98	65·46	72·91	79·64	63·09
1923.....	1,719	1,420	3,139	79·56	69·02	74·42	80·94	65·46
1924.....	1,750	1,372	3,122	79·88	67·13	73·73	77·97	67·64
Average for 10 years (1915 to 1924).....	1,878	1,482	3,360	87·1	73·4	80·5	88·2	69·7
1925.....	1,692	1,277	2,969	75·5	60·80	68·39	77·69	58·56

(ii) INFANTILE MORTALITY RATE*—EUROPEANS, 1920 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1920.....	89·77	72·17	93·99	89·67	90·07
1921.....	76·51	60·24	82·86	71·67	77·09
1922.....	70·91	54·64	78·92	72·56	72·91
1923.....	73·95	61·01	80·74	65·12	74·42
1924.....	69·19	80·06	76·60	77·66	73·73
1925.....	73·12	58·71	64·78	69·58	68 39

* Proportion of deaths of infants under one year per 1,000 births registered.

14. **Infantile Mortality in Various Countries.**—The following table has been compiled from different sources and contains information to the latest available date. For greater ease of reference, and in view of the relation between the birth rate and infantile mortality, the crude birth rate has also been included in the table for comparison.

RATE OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Infantile Mortality Rate.	Crude Birth Rate.	Country.	Year.	Infantile Mortality Rate.	Crude Birth Rate.
New Zealand	1923	44	22·0	Canada	1924	79	23·1
Netherlands	1923	57	26·0	Latvia	1923	88	21·9
Australia	1923	61	23·8	France	1923	96	19·4
Norway	1921	63	24·5	Scotland	1924	98	21·9
Sweden	1921	65	21·4	Germany	1924	108	21·1
Irish Free State	1923	66	19·4	Belgium	1921	115	21·8
Switzerland	1922	68	19·6	Prussia	1921	134	24·9
Union of South Africa*	1924	74	26·3	Spain	1922	142	30·5
England and Wales	1924	75	18·8	Austria	1920	157	22·4
U.S.A.	1922	76	22·5	Japan	1922	166	34·2
Northern Ireland	1922	77	23·0	Jamaica	1922	177	37·3

* European population only.

15. **Causes of Infantile Deaths.**—The principal causes of deaths of infants are given in the following table for a series of years. Diarrhoea and enteritis account for over 20 per cent. of infantile deaths each year, and during the period under review the number of deaths from these causes each month increased from October each year, reaching its peak during December, and falling away again during the month of March. The five months, October to February, which are the warmest months of the year, are therefore responsible for the high death rate from infantile diarrhoea.

INFANTILE MORTALITY IN THE UNION (EUROPEANS)—CAUSES OF DEATH, 1921 TO 1924.

Cause.	Number of Deaths from each Cause.				Proportion per Cent. of Total Deaths.			
	1921.	1922.	1923.	1924.	1921.	1922.	1923.	1924.
Measles	30	18	15	27	0·90	0·58	0·48	0·86
Scarlet fever	1	5	3	1	0·01	0·16	0·10	0·03
Whooping cough	83	47	90	108	2·49	1·50	2·87	3·46
Diphtheria and croup	26	11	15	8	0·78	0·35	0·48	0·26
Syphilis	13	23	16	12	0·39	0·74	0·51	0·38
Simple meningitis	91	46	37	14	2·73	1·47	1·18	0·45
Convulsions	89	100	85	67	2·67	3·20	2·71	2·15
Bronchitis, acute and unspecified	121	133	97	111	3·62	4·26	3·09	3·56
Broncho-pneumonia	265	324	265	329	7·94	10·37	8·44	10·54
Diarrhoea and enteritis	689	641	723	699	20·64	20·53	23·03	22·39
Congenital malformations	81	92	93	105	2·43	2·95	2·96	3·36
Congenital debility, premature birth, etc.	586	514	535	549	17·56	16·46	17·04	17·58
Other diseases peculiar to early infancy	67	64	93	74	2·01	2·05	2·96	2·37
All other certified causes	323	299	293	256	9·68	9·57	9·33	8·20
Uncertified causes	873	806	779	762	26·15	25·81	24·82	24·41
TOTAL	3,338	3,123	3,139	3,122	100·00	100·00	100·00	100·00

16. **Infantile Mortality in Regional Divisions.**—The following table gives a comparison with the Union of the infantile mortality rate in six *regional* or *climatic divisions.*

The fluctuations in the rates recorded in the Cape Thornveld and Transvaal Bushveld may be due to some extent to the small population of these areas, and, therefore, to the small numbers upon which the rates are calculated. A very small increase or decrease in the numbers of either births or infant deaths causes a marked variation in the mortality rate. The most noticable figures in the table are the mortality rates of the Transvaal Bushveld. An average taken over the four years 1921–24 shows this area as recording the lowest infantile mortality rate with nearly the highest birth rate, an unusual occurrence, and also the lowest general death rate.

The *Bushveld* embraces large tracts of land which are very unhealthy during the malarial season, and it is surprising to find the vital rates other than one would naturally expect

from the climatic conditions prevailing. The explanation appears to lie in the fact that the population is largely migratory and that families trek to healthier parts during the hottest and also the fever months of the year. The probability is that a number of deaths occur and are registered in the *High Veld* or other regions, while the death rate is based upon the normal population, which at certain seasons is below normal. It is difficult to account for the high birth rate except that the seasonal distribution of births in the Union indicates that the greatest number occur during the healthiest months of the year, when the population of the region is normal. The large number of births and the small number of deaths recorded, both infantile and other, account for the low infantile mortality rate.

INFANTILE MORTALITY IN REGIONAL DIVISIONS—EUROPEANS, 1921 TO 1924.

Divisions.	Deaths under One Year of Age.				Infantile Mortality Rates.			
	1921.	1922.	1923.	1924.	1921.	1922.	1923.	1924.
I. South-Western Coastal...	654	598	642	571	86·35	74·42	80·12	68·34
II. South-Eastern Coastal...	240	210	231	263	66·39	58·04	64·94	70·41
III. Karroo-Cape Central.....	365	364	357	373	69·83	70·46	68·16	70·68
IV. Highveld.....	1,837	1,721	1,661	1,701	79·06	77·16	76·70	78·99
V. Cape Thornveld.....	112	110	88	103	70·89	70·28	58·09	71·13
VI. Transvaal Bushveld.....	130	120	160	111	62·77	55·97	72·66	55·61
UNION.....	3,338	3,123	3,139	3,122	77·09	72·91	74·42	73·73

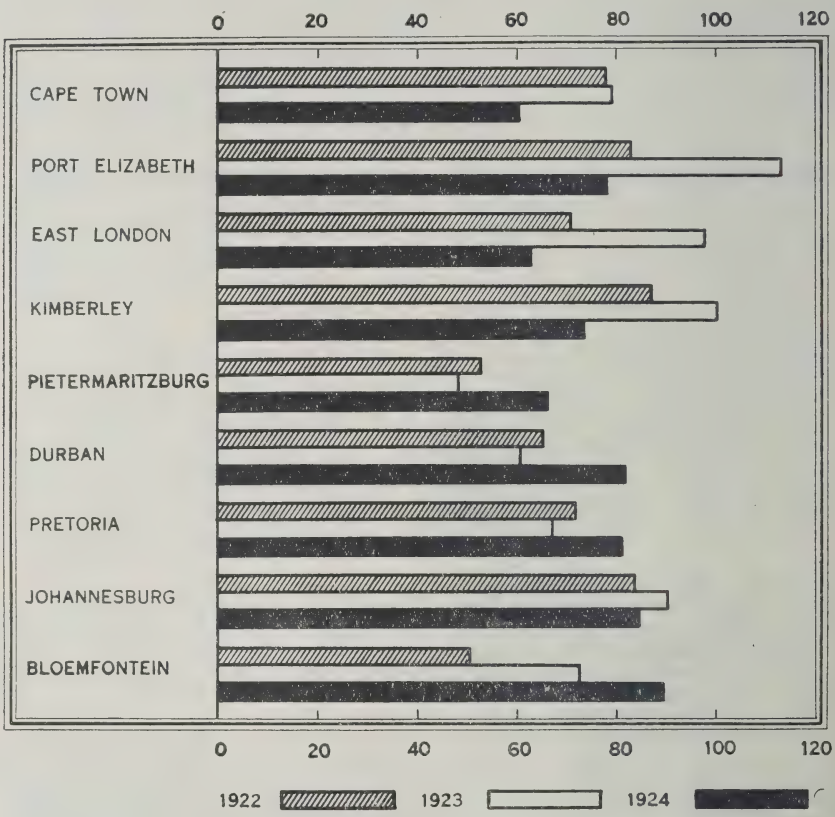
17. **Infantile Deaths in Principal Urban Centres.**—Since January, 1921 a monthly statement has been received from certain District Registrars of Births and Deaths giving the number of registrations in the nine largest municipalities of the Union, with a view to building up a record of the seasonal variations of infantile mortality. The following table gives the figures for the years 1923 and 1924. The accompanying diagram gives a ready comparison between the towns.

The statistical records for the non-European population are also given in the table. Unfortunately, the race constitution, mode of living, age, and sex distributions of the several populations vary considerably and thus preclude any reliable comparisons being made, especially between inland and coastal towns. The nature of these peculiarities of population and their effect on vital statistics is more fully explained in a previous paragraph dealing with the non-European birth rates in these municipalities. Compulsory registration of non-European events only came into effect in Bloemfontein on the 1st January, 1924. The number of deaths shown in the following table therefore includes a number of infants whose births had never been recorded, and any rate computed on the figures would therefore be not only inaccurate, but misleading.

(i) INFANTILE MORTALITY IN NINE PRINCIPAL TOWNS, 1923–1924.

Town.	European.						Non-European.		
	1923.			1924.			1924.		
	Deaths under 1 year.	Births Registered.	Infantile Mortality Rate.	Deaths under 1 year.	Births Registered.	Infantile Mortality Rate.	Deaths under 1 year.	Births Registered.	Infantile Mortality Rate.
Cape Town.....	185	2,327	79·5	153	2,532	60·43	731	4,575	159·78
Port Elizabeth..	91	805	113·0	62	793	78·18	176	673	261·52
East London....	53	542	97·8	34	542	62·73	235	792	296·72
Kimberley.....	46	459	100·2	35	476	73·53	256	802	319·20
Pietermaritbzurg	23	477	48·2	34	514	66·15	113	390	289·74
Durban.....	77	1,267	60·8	102	1,249	81·67	142	1,143	124·23
Pretoria.....	82	1,067	76·9	81	999	81·08	180	401	448·88
Johannesburg:..	351	3,888	90·3	332	3,931	84·46	720	1,738	414·27
Bloemfontein....	34	468	72·6	41	459	89·32	280	340	—

EUROPEAN RATES OF INFANTILE MORTALITY IN LARGE MUNICIPALITIES.



PROPORTION OF DEATHS OF INFANTS UNDER 1 YEAR PER 1,000 BIRTHS REGISTERED.

(ii) *Infantile Mortality in Various Cities.*—The following table is compiled from various sources and shows the infantile mortality rate in various large cities throughout the world for the calendar year 1924. The rates for three largest towns in the Union have been included for comparison and the figures show that of these Capetown recorded the lowest rate, 61 or 8 per 1,000 less than London, and 58 per 1,000 less than Glasgow.

(ii) INFANTILE MORTALITY RATES OF VARIOUS CITIES, 1924.

City.	Rate.	City.	Rate.	City.	Rate.
Amsterdam	34	Birmingham	80	Liverpool	102
Oslo	47	Antwerp	82	Belfast	107
Stockholm	50	Johannesburg	83	Berlin	109
Cape Town	61	Paris	88	Dublin (Registraton Area)	113
London	69	Edinburgh	89	Glasgow	119
Copenhagen	77	Manchester	97	Budapest	151
Durban	78	Vienna	99		

18. **Certified and Uncertified Deaths.**—There has been a steady improvement in the number of deaths certified by medical practitioners as compared with the uncertified deaths. In the year 1911 the percentage was 75·95. In 1914 nearly four-fifths of the total number of deaths registered were certified. In 1924 for both urban and rural areas the percentage of certified deaths was the highest yet recorded and Natal had no uncertified deaths in the urban areas.

The lowest percentage of uncertified events is in Natal, where, excluding Zululand, the density of the population is greater than in the other Provinces.

According to the Union registration law and to the old registration laws in the several Provinces there should be no uncertified deaths in proclaimed urban areas, but it frequently happens that in the smaller towns and villages deaths occur of residents well known to the community to have been suffering from long-standing diseases who have been unattended by a medical practitioner. If the local Registrar or Magistrate is satisfied that death resulted from natural causes in these cases, then an inquest is frequently dispensed with and the event recorded in the usual manner. The figures shown in the following table as uncertified urban events are mainly accounted for by such cases as these. When an inquest or magisterial inquiry has been held into the cause of death the event is recorded as a certified registration.

Figures for earlier years are given in previous issues of this *Year Book*.

During the year 1924 there were 846 inquests held in the Union, the figures for each Province being : Cape of Good Hope 275, Natal 141, Transvaal 348, and Orange Free State 82. This gives a ratio of 5·5 inquests for every 100 deaths registered. Of the 846 inquests, 662 were held on male decedents and 184 on female decedents.

PERCENTAGES OF CERTIFIED AND UNCERTIFIED DEATHS—EUROPEANS, 1920 TO 1925.

YEAR.	CAPE.		NATAL.		TRANSVAAL.		O.F.S.		UNION.	
	Certified.	Uncertified.	Certified.	Uncertified.	Certified.	Uncertified.	Certified.	Uncertified.	Certified.	Uncertified.
					URBAN AREAS.					
1920..	91·54	8·46	98·37	1·63	98·90	1·10	97·62	2·38	95·43	4·57
1921..	93·12	6·88	99·00	1·00	97·97	2·03	98·00	2·00	95·96	4·04
1922..	95·11	4·89	98·79	1·21	99·03	0·97	96·41	3·59	97·15	2·85
1923..	95·71	4·29	99·21	0·79	99·23	0·77	98·37	1·63	97·65	2·35
1924..	96·07	3·93	100·00	—	99·19	0·81	98·53	1·47	97·88	2·12
1925..	96·31	3·69	99·82	0·18	99·10	0·90	98·73	1·27	97·94	2·06
					RURAL AREAS.					
1920..	31·45	68·55	81·68	18·32	53·74	46·26	80·83	19·17	50·29	49·71
1921..	31·31	68·69	89·01	10·99	59·83	40·17	80·50	19·50	51·72	48·28
1922..	31·58	68·42	87·29	12·71	62·09	37·91	84·12	15·88	52·62	47·38
1923..	35·87	64·13	89·26	10·74	58·03	41·97	82·29	17·71	54·57	45·43
1924..	46·24	53·76	84·60	15·40	62·14	37·86	82·35	17·65	59·80	40·20
1925..	57·88	42·12	91·13	8·87	67·39	32·61	86·80	13·20	67·63	32·37
					TOTAL—ALL AREAS.					
1920..	71·45	28·55	93·71	6·29	83·69	16·31	89·48	10·52	79·78	20·22
1921..	70·69	29·31	96·31	3·69	86·89	13·11	89·34	10·66	80·76	19·24
1922..	73·45	26·55	96·73	3·27	88·69	11·31	90·52	9·48	82·96	17·04
1923..	75·14	24·86	96·45	3·55	85·85	14·15	90·62	9·38	82·77	17·23
1924..	78·59	21·41	96·28	3·72	87·10	12·90	90·75	9·25	84·74	15·26
1925..	81·07	18·93	97·52	2·48	88·40	11·60	92·31	7·69	86·45	13·55

19. **Ages at Death.**—In previous issues of this *Year Book* particulars have been given in some detail as to ages at death. Considerations of space necessitate the omission of these tables in the present issue ; but the subject is dealt with more fully in a special report dealing with vital statistics, and also in the Report on the Census of 1921 (Life Table and Mortality Rates).

20. **Classified Causes of Death.**—The Government of the Union is a party to the agreement executed in Paris on the 3rd July, 1909, by the International Commission which revised the *International Classification of the Causes of Sickness and Death*. From the 1st January, 1912, the *International Nomenclature* was adopted as standard throughout the Union for the tabulation of Vital and Morbidity Statistics, so that from that date the vital statistics of the Union are comparable with those of other countries using the same classification. The detailed statistics for the years 1912 to 1915 will be found in the *Statistical Year Book* of the Union Nos. 1, 2, 3, and 4, and for years 1916, 1917, and 1918 in *Statistics of Population* [S.P. 3], [S.P. 7], and [S.P. 24] respectively.

In the first two issues of this publication the causes of death were shown grouped in fourteen categories, but the tables have since been recast and the figures shown for the year 1922 and previous years in more useful form by the adoption of the *International Abridged List*, supplemented by the addition of certain causes of special interest to the Union, such as miners' phthisis, silicosis, and plague.

It is interesting to note that other countries using the *International Abridged List* have also found it convenient to amend the original list to suit local conditions, and Australia, the United States, and England and Wales are all using different abbreviated nomenclatures, which, at the same time, are comparable in respect of the principal diseases.

The table hereunder shows the number of deaths registered in the Union for the years 1920 to 1924.

CERTIFIED AND UNCERTIFIED CAUSES OF DEATH. (ABRIDGED INTERNATIONAL LIST.)

EUROPEAN—UNION, 1920 to 1924.

Cause of Death.	1920.*	1921.		1922.		1923.		1924.	
	Certified Only.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.
Enteric Fever...	395	325	392	305	350	356	409	282	340
Typhus Fever...	18	17	33	14	20	9	11	9	10
Malaria.....	148	84	101	41	60	154	331	74	111
Smallpox.....	9	2	2	—	1	—	—	—	—
Measles.....	139	115	171	58	81	83	98	162	239
Scarlet Fever....	31	7	13	22	23	24	25	16	16
Whooping Cough	212	127	214	62	92	162	198	195	261
Diphtheria.....	185	170	221	161	218	166	245	127	176
Influenza.....	347	892	1,261	589	788	300	399	401	494
Plague.....	—	2	22	—	—	—	—	20	22
Leprosy.....	11	21	105	19	19	17	17	16	16
Pulmonary Tuberculosis...	601	632	700	477	555	476	557	561	627
Tuberculous Meningitis.....	35	27	27	26	26	27	29	22	23
Tuberculosis of Bones, etc....	33	33	36	32	34	41	45	30	33
Other Tuberculous Diseases	21	20	20	26	27	21	24	26	26
Syphilis.....	29	44	45	47	49	37	37	47	47
Cancer.....	884	916	992	993	1,103	1,127	1,247	1,143	1,230
Meningitis.....	200	208	221	193	204	228	240	167	178
Cerebral Haemorrhage..	441	428	503	473	548	483	564	376	457
Cardiac Diseases.	1,208	1,265	1,359	1,256	1,342	1,358	1,456	1,535	1,630
Bronchitis.....	451	431	534	412	531	323	424	394	496
Pneumonia.....	1,264	1,148	1,542	1,092	1,450	1,137	1,483	1,162	1,498
Miners' Phthisis, without Tuberculosis.....	133	11†	11†	99	102	88	91	106	111
Miners' Phthisis, with Tuberculosis.....	‡	62	93	101	101	78	79	121	122
Other Respiratory Diseases.....	260	232	330	223	288	242	325	180	220
Ulcer of the Stomach.....	22	36	38	47	47	47	48	76	78
Diarrhœa (under 2 years).....	1,133	853	951	796	878	897	1,000	878	975
Appendicitis.....	134	102	107	112	117	128	132	164	168
Cirrhosis of the Liver.....	76	50	54	62	64	66	67	62	62
Nephritis (Acute and Chronic)..	336	324	336	330	346	359	372	426	440
Puerperal Sepsis.	84	69	76	81	89	91	97	71	73
Other Accidents of Pregnancy..	94	109	138	100	134	100	123	111	128
Congenital Debility.....	685	690	783	633	727	638	742	669	797
Suicides.....	157	139	147	163	163	170	171	180	181
Other Violent Deaths.....	566	618	625	756	770	645	654	588	608
Other Defined Diseases and Unspecified....	2,928	2,595	3,652	2,438	3,406	2,700	3,698	2,750	3,610
	13,270	12,804	15,855	12,239	14,753	12,778	15,438	13,147	15,503

* There were 3,364 Uncertified Deaths in 1920, the detailed causes of which are not available.

† Miners' Phthisis. Silicosis combined with Pulmonary Tuberculosis included with Pulmonary Tuberculosis above.

‡ Included in Pulmonary Tuberculosis.

21. **Deaths from Tuberculosis.**—The following tables relating to the mortality from tuberculosis show only the certified deaths. As given under the heading "Certified and Uncertified Deaths," the proportion of uncertified deaths is so high, averaging 22 per cent. of the total registrations, and the causes of death returned by informants of uncertified deaths are so unreliable that it has been found possible to tabulate only the certified causes.

Table (i) hereunder gives the number of Europeans who died from tuberculosis in the Union during seven years, and the number of deaths per 100,000 of the estimated mean population each year. Table (ii) gives the number of Europeans certified to have died of this disease at various age groups during a similar period, and table (iii), the death rates per 100,000 in each Province between the years 1915 and 1924, distinguishing between males and females. Table (iv) shows the annual average male, female, and total death rates from tuberculosis in each year between 1916 and 1922. These rates have been computed on the average number of deaths per 100,000 of the average mean population of each sex during the quinquennial periods shown.

(i) CERTIFIED DEATHS FROM TUBERCULOSIS—EUROPEANS, UNION, 1918 TO 1924.

Form of Disease.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Tuberculosis :—							
Of Lungs	585	600	601	694	578	554	682
Meningeal	25	17	35	27	26	27	22
Abdominal	31	15	29	25	21	33	19
Of Vertebral Column	5	3	3	7	8	6	6
Of Joints	3	6	1	1	—	—	1
Of Skin	11	8	9	7	7	8	1
Of Bones					2	1	2
Lymphatic System					1	1	2
Genito Urinary System					3	3	2
Other Organs					2	1	—
Disseminated Tuberculosis	13	12	12	13	14	9	23
TOTAL	673	661	690	774	662	643	760
Death rate per 100,000 of the Population	46·28	44·77	46·00	50·83	42·54	40·70	47·18

(ii) AGES OF EUROPEANS WHO DIED FROM TUBERCULOSIS (CERTIFIED DEATHS), UNION, 1918 TO 1924.

Age Periods.	1918.	1919.	1920.	1921.	1922.	1923.			1924.		
						Male.	Female.	Total.	Male.	Female.	Total.
0– 4 years.	43	31	40	39	31	19	19	38	22	14	36
5– 9 ,,	16	9	17	16	8	6	6	12	5	8	13
10–14 ,,	16	11	11	15	14	7	7	14	4	5	9
15–19 ,,	31	16	22	28	27	13	13	26	20	27	47
20–24 ,,	48	48	54	63	55	16	23	39	28	27	55
25–29 ,,	55	58	67	64	61	24	41	65	24	30	54
30–34 ,,	77	78	57	67	69	30	25	55	35	30	65
35–44 ,,	190	196	171	213	159	131	35	166	138	46	184
45–54 ,,	124	135	148	164	153	98	31	129	144	37	181
55–64 ,,	49	49	70	77	62	50	13	63	61	16	77
65–74 ,,	15	27	26	26	21	22	6	28	24	11	35
75 and over	9	3	7	2	2	4	4	8	2	2	4
Not stated	—	—	—	—	—	—	—	—	—	—	—
TOTAL	673	661	690	774	662	420	223	643	507	253	760

(iii) **DEATH RATES (CERTIFIED DEATHS) FROM TUBERCULOSIS PER 100,000 OF THE EUROPEAN POPULATION—UNION AND PROVINCES, 1915 TO 1924.**

Province.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
MALE.										
Cape	56·42	42·31	64·12	52·07	41·56	52·55	48·21	54·25	45·86	60·33
Natal	69·37	75·22	66·75	64·87	57·63	73·70	74·93	34·27	40·28	50·93
Transvaal	60·69	72·37	70·23	76·62	82·21	72·91	92·62	74·70	72·76	81·89
Orange Free State	19·98	27·30	37·75	37·65	43·60	45·30	54·13	19·07	19·91	13·73
Union	54·26	53·91	63·18	60·24	57·95	60·92	67·51	55·39	51·96	61·58
FEMALE.										
Cape	40·43	44·91	51·27	39·25	49·23	39·07	45·48	42·16	37·37	43·03
Natal	33·52	35·95	38·21	46·97	30·66	43·50	25·46	8·22	37·66	33·69
Transvaal	21·73	33·91	22·42	21·28	13·39	19·73	21·90	21·66	20·39	22·70
Orange Free State	25·92	16·30	16·12	18·20	12·37	17·79	23·09	18·44	17·17	20·13
Union	31·76	36·77	35·55	31·06	30·55	30·07	33·15	28·95	28·91	32·13
TOTAL										
Cape	48·64	43·58	57·53	45·81	45·32	45·94	47·43	48·28	41·65	51·76
Natal	52·52	56·72	53·28	56·39	44·73	59·14	50·94	21·79	38·99	42·44
Transvaal	42·95	54·71	48·09	50·80	49·82	47·70	58·90	49·16	47·54	53·30
Orange Free State	22·78	21·99	27·44	28·33	28·61	32·08	39·20	18·77	18·59	16·80
Union	43·63	45·78	50·02	46·28	44·77	46·00	50·83	42·54	40·70	47·18

(iv) **MORTALITY FROM TUBERCULOSIS (CERTIFIED DEATHS OF EUROPEANS)—ANNUAL AVERAGE DEATH RATES PER 100,000 OF THE MEAN POPULATION COMPUTED FOR OVERLAPPING QUINQUENNIAL PERIODS.**

Sex.	Mean Year.						
	1916 (1914–18).	1917 (1915–19).	1918 (1916–20).	1919 (1917–21).	1920 (1918–22).	1921 (1919–23).	1922 (1920–24).
Male	57·81	57·89	59·16	61·87	60·26	58·75	59·47
Female	33·32	33·11	32·73	32·16	30·89	30·33	30·64
Total	46·19	46·09	46·52	47·57	46·08	44·97	45·45

22. **Deaths from Other Special Causes.**—An analysis of certified deaths from other causes up to the year 1921 was given in the sixth and previous issues of this *Year Book*. The following were dealt with :—Cancer, organic heart disease, childbirth, infectious and notifiable diseases, infantile diarrhoea and enteritis, violence (including suicide), and influenza.

§ 4. Marriages.

1. **Marriages in the Cape of Good Hope.**—(i) *Persons who may not Marry.*—Persons who may not marry in the Cape of Good Hope are males under fourteen and females under twelve years of age; minors, i.e. persons under twenty-one years of age (not being widowers or widows), unless with the consent of parents or guardians or of a Judge; persons of unsound mind; impotent persons, and blood relations in the direct line and collaterals within the third degree; persons previously married while such marriages subsist. Widowers or widows with minor children may only marry on the production of a certificate from the Master of the Supreme Court that the inheritance of minors has been secured, or that the estate or the deceased spouse is valued at less than £100. A guardian may not marry his ward until his accounts as guardian have been closed and audited.

(ii) *Persons Authorized to Solemnize Marriages.*—Magistrates and Detached Assistant Magistrates are authorized to solemnize marriages, as are also persons (ministers of religion, officers of the Public Service, or private individuals) who may be specially designated as marriage officers by the Minister of the Interior. Persons who were authorized to solemnize marriages in the Cape of Good Hope Province prior to the passing of the Act No. 43 of 1916 still possess that power. A marriage officer's authority may be revoked for misconduct or for other sufficient cause. The solemnization of marriages without proper authority is punishable by fine not exceeding £200, or by imprisonment with or without hard labour for a period not exceeding twelve months.

(iii) *Preliminaries to Marriage.*—In the case of Magistrates or Detached Assistant Magistrates written notice must be posted in a conspicuous place in or near the Court-house for a period of twenty-one days and read out in Court thrice, with an interval of not less than three days between consecutive readings, during such period, in the district or sub-district in which each of the parties has resided for not less than fourteen days prior to such publication of notice. In the case of ministers of the Christian religion, banns must be published on three Sundays before the congregation to which each of the parties belongs. All other marriage officers must publish notices of marriage by affixing a copy of each notice for a period of not less than twenty-one days in a conspicuous place accessible to the public at the residence of the marriage officer or in or at the building or place of worship of the congregation to which each of the parties belongs; and, if there is no such building, then at the Court of the Magistrate or Detached Assistant Magistrate of the district or sub-district in which each of the parties resides. No period of residence is specified in the case of ministers and marriage officers, other than Magistrates and Detached Assistant Magistrates. When the parties reside in different places, whether within the Province or elsewhere, banns or notice must be published in both such places in accordance with the law of the country in which the places are situated with relation to all marriage officers; and certificates of such publication, signed by the person or persons publishing such banns or notice, must be produced to the officiating marriage officer. Whenever banns are published by any one other than the officiating marriage officer, a certificate or certificates of such publication must be produced. A special licence is obtainable at the office of any Magistrate or Detached Assistant Magistrate at a cost of £5. The marriage must be solemnized within three months after the date of issue of the licence or of the last publication of banns.

(iv) *The Marriage Ceremony.*—In the case of ministers of the Christian religion the ceremony must be that of the denomination concerned. All marriage officers, except ministers of the English and Dutch Reformed Churches, who are allowed to follow the form adopted by their Churches, must in some part of the ceremony require the parties to repeat the words: "I do solemnly declare that I know not of any lawful impediment why I, A B, may not be joined in matrimony to C D, here present," and "I call upon these persons here present to witness that I, A B, do take C D to be my lawful wedded wife (or husband)." Marriages may be solemnized by Magistrates and Detached Assistant Magistrates in the court-room or office between the hours of 9 a.m. and 12 noon, or in a private house at any convenient hour of the day; and by other marriage officers between the hours of 8 a.m. and 4 p.m. There are no specified hours within which marriages by special licence must be performed.

(v) *Registration.*—After the ceremony certain documents are required to be signed by the parties, by at least two witnesses, and by the officiating marriage officer, these being, in the case of Magistrates and Detached Assistant Magistrates, the original register form, which, after being copied into the marriage record book, is forwarded to the Central Office; and in the case of other marriage officers, the original register book and the duplicate original register form, which latter is dispatched to the Central Office for registration.

(vi) *Certificates, Searches, and Fees.*—Magistrates and Detached Assistant Magistrates may not charge a fee for solemnizing marriages, and no provision exists for searches to be made or certificates to be issued by them. Other marriage officers (except ministers of churches established in the Province prior to the 7th September, 1838, who are entitled to the fees customarily paid to them at that date) may charge a fee of 4s. for solemnizing a marriage. The fees payable for searches and issue of certificates are prescribed by regulation framed under Act No. 23 of 1923 (*vide* paragraph 5).

2. **Marriages in Natal.**—(i) *General.*—Ordinance No. 17 of 1846 provides for the solemnization of marriages after the publication of banns by ministers of the Christian religion. After three months from the date of the last publication of banns, marriage may not be performed unless the banns are republished. The Government may appoint marriage officers to perform marriage ceremonies. Before minors are married the consent of their legal guardians must be obtained, and if that is not procurable, then the consent of the chief Civil Judge must be obtained. After the marriage ceremony an entry of the marriage is required to be made in the register kept by the minister or marriage officer, such entry being signed by the parties in the presence of two witnesses and the minister or marriage officer.

Under Law No. 7 of 1889 Magistrates of every district are authorized to issue licences to marry in place of the publication of banns, and such licences lapse after three months from the date of issue. The parties must make a declaration before the licence is issued. In the event of a minor wishing to obtain a licence to marry, the consent of the legal guardian must first be procured; but if this is not possible, then the consent of the chief Civil Judge is necessary. In the event of false declaration being made, the offender renders himself liable to imprisonment for any period up to five years.

All the foregoing requirements apply to white persons, to natives exempt from the operation of native law, and to Christian Indians.

(ii) *Indian Immigrants.*—All marriages of Indian immigrants are required to be registered with the Protector of Indian Immigrants under Natal Law No. 25 of 1891; and in the case of Christian Indians an additional copy of the marriage register is forwarded to the Protector.

(iii) *Natives.*—Under Natal Law No. 28 of 1865, natives exempted from the operation of native law and having once married are never allowed to marry according to native law. Law No. 46 of 1887 provides that natives, one or both of the parties being subject to native law, may be married by Christian rites. They must apply to the Magistrate for a licence, which holds good for three months. Persons making a false statement in obtaining a licence render themselves liable to a penalty of £10 or to imprisonment for three months. Ministers may not solemnize these marriages without the necessary licence. The children of natives thus married cannot marry according to native law. Under Act No. 44 of 1903, a minister who solemnizes marriages of natives by Christian rites must be licensed by the Governor-General. There is a penalty for officiating at a marriage without being licensed to do so, and also for neglecting to keep a marriage register and to forward copies to the persons proper to receive them. The Registrar-General maintains a general index in which are shown all marriages set out in the copies furnished by ministers and marriage officers.

3. **Marriages in the Transvaal.**—(i) *General.*—Act No. 13 of 1909 of the Transvaal, amending Law No. 3 of 1871, provides that marriages between white persons may be either by banns or by licence, and may be solemnized by the Magistrates of the various districts and all ministers of religion who have been appointed marriage officers by the Minister of the Interior. Banns must be published in public in the ordinary manner on three successive Sundays during Divine Service in a church or other building habitually used for public worship or by their being posted up for a period covering three successive Sundays in a conspicuous place, to which the public have access, at the Magistrate's Office of the district in which either of the parties to the intended marriage resides, or in which both of them reside. If a marriage is not solemnized within three months after the last publication of banns, such publication is no longer valid, and publication must take place afresh. A special licence may be obtained by the parties appearing before a Magistrate, after satisfying such Magistrate that there are no impediments to the marriage. The fee for a licence, which is valid for three months from the date of issue, is £5. The fee payable to the Government in respect of any marriage solemnized by a Magistrate is 5s.

(ii) *Marriages of Coloured Persons.*—Law No. 3 of 1897 regulates the marriages of coloured persons. The term *coloured person* includes any person who is manifestly coloured, and whose marriage on that account cannot be solemnized under the law for white persons. Before a marriage of coloured persons can be solemnized the parties must appear before a civil marriage officer, and submit a certificate from their parents or guardian, from their captain or chief or the minister of their church, or, in the absence of any of these persons, from any reputable citizen, preferably a person occupying an official position, such as the native or sub-native commissioner, to the effect that there is no impediment to the marriage according to law. The civil marriage officer then grants an enabling certificate on which the marriage can be solemnized. Marriages of coloured persons contracted prior to the promulgation of Law No. 3 of 1897 are not legal, but may be legalized by registration under Ordinance No. 29 of 1903, provided that such marriages were solemnized by ministers of religion authorized to solemnize marriages under Law No. 3 of 1871.

(iii) *Marriages of Minors.*—Sections 8 and 16 of Law No. 3 of 1871, as amended by Act No. 13 of 1909, provide that: If any person acknowledges to be a minor, or if from any other information there are good grounds for considering him or her to be such, and he or she cannot produce the consent of father or guardian, or in case a widower or widow wishes to remarry and minor heirs are left for whose father's or mother's portion of the inheritance proper security (bewys) shall not have been given according to law, according to certificate from the Orphan Master (now the Master of the Supreme Court) or other official authorized by law thereto, or if it shall be known that the persons who seek to be joined together in matrimony are related to one another within one of the prohibited degrees of blood relationship or that they have come from beyond the borders of this State for the express purpose of being married here because they would not have been able to effect such in the place where they reside, or the publication of banns shall not have taken place, or a special licence shall not have been granted as provided by law, or if it shall be known, or if, by inquiry in the manner provided by Article 5, or in any other lawful manner it might have been learned it shall not be lawful to solemnize a marriage of such a person, and any magistrate or marriage officer, who, in such event, solemnizes such a marriage, shall be liable on conviction, to a fine not exceeding £50 or in default of payment to imprisonment with or without hard labour, for a period not exceeding six months.

If a minor cannot obtain the consent of parents or guardians to enter into a marriage owing to insurmountable difficulties, such as protracted absence of the same from the State or other unforeseen impediment, it shall be lawful for the magistrate of the district in which the minor resides, to grant or refuse consent after due inquiry into such cases.

4. **Marriages in the Orange Free State.**—The Law relating to the contracting of marriages in the Province of the Orange Free State is No. 26 of 1899, which came into operation on the 14th July of that year. This Law makes provision for marriages to be entered into either after publication of banns or by special marriage licence.

The administration of sections 8, 9, 11, 15, and 18 of the Law was delegated to the Administrator by the Governor-General-in-Council under the provisions of section 84 of the *South Africa Act*, with effect from the 24th August, 1911; and in terms of Proclamation No. 228 of the same date the duties which were performed under the Law by the Government Secretary now devolve upon the Provincial Secretary. The remaining provisions of the Law continue to be vested in the Governor-General.

In the case of a marriage by banns, it is required by section 3 that the banns shall be publicly published on three consecutive Sundays during the holding of public Divine Service in some church building or other recognized institution for public Divine worship within the parish wherein one or both of the parties reside; should the parties reside in different parishes, the banns must be published in each such parish. Section 7, however, allows of the publication of banns, under special circumstances, by means of a notice affixed to the outside door of the court-room of a Magistrate during a period of three weeks.

The procedure to be followed by applicants for a special marriage licence is set forth in sections 9, 10, and 11 of the Law, and in accordance therewith the parties are required to appear together before a Magistrate and there make and subscribe to affidavits containing answers to questions which it is necessary for him to put to them in order to satisfy himself that there are no legal impediments to the issue of the special marriage licence applied for. The application, supported by the affidavits and the Magistrate's certificate of his examination of the parties, is then submitted to the Administrator, who, if all legal requirements have been complied with, issues the licence, which authorizes any lawfully appointed marriage officer in the Province to solemnize the marriage.

Section 7 empowers Magistrates or Assistant Magistrates to act as marriage officers, and section 16 prescribes the marriage formula to be employed in the case of marriage ceremonies to be performed by those officers, but ministers, priests, or missionaries must be specially authorized by the Governor-General-in-Council, in terms of section 4 of the Law, to act as marriage officers before they can solemnize any marriage within the Province.

Section 13 prescribes the qualifications required in parties to marriages, and mentions the disqualifications on account of which marriages are prohibited. It is provided, *inter alia*, that minors must have attained the age of eighteen years in the case of males and fifteen years in the case of females, and that they must produce evidence of the consent of their parents or guardians in respect of their contemplated marriage. Where a parent's consent is unobtainable by reason of his absence from the Province or by reason of any other unforeseen circumstance, the Magistrate may, after due investigation, and on his being satisfied that there are no reasonable grounds for refusal, grant consent under the provisions of section 19. In the case of a widower three months, and in the case of a widow 180 days, must have elapsed since the death of the deceased spouse before a further marriage may be contracted by him or her. The Law relating to the prohibited degrees of consanguinity referred to in this section is Ordinance No. 31 of 1903.

In terms of section 15 the special leave of the Administrator is necessary for a marriage between persons, both of whom are resident in the Province, who proceed to another Province or country for the purpose of having their marriage solemnized there.

Marriages may be solemnized, as provided by section 17, on any day of the week, including Sunday, but the ceremony must take place between the hours of eight in the morning and four in the afternoon in some church or other public building devoted to Divine Service, public office, or private house with open doors, and in the presence of at least two legally qualified witnesses.

Section 18 prescribes the form of the register to be used in connection with the celebration of marriages and provides for the custody of the original registers and the duplicate original registers respectively, as well as for the kind of evidence of a marriage necessary and sufficient for the purposes of the Courts.

Section 28 provides for the recognition of heathen marriages, and lays down that the children of such marriages shall not be deprived of the right to take, by way of inheritance, the lawfully acquired property of such parents, and further establishes the right of the parents to hold and exercise the same rights over their children that they would have had if such children had been born in lawful wedlock.

The remaining provisions of the Law deal with breach of promise, foreign marriages, marriage fees payable to Magistrates in the case of civil marriages, church rites and rules, and prohibited marriages; also with the penalties which may be imposed for contraventions of the Law.

5. **Union Legislation.**—Act No. 20 of 1913 authorizes the solemnization of marriages after the publication of banns in different places, whether one or both such places be in another Province, or in a country, colony, or territory outside the Union.

Under section 56 of Act No. 24 of 1913, the remarriage of the surviving spouse before the portions of minor children are secured is prohibited, except with the consent of the Master of the Supreme Court.

Act No. 22 of 1914 provides that Indian marriages according to the tenets of an Indian religion may be legalized by registration, provided that a joint application is made to any Magistrate or marriage officer and that each of the parties is desirous that the marriage should be regarded as a valid and binding one in law. Such unions become by the fact of registration valid and binding marriages from the date when they were contracted, and all incidents follow therefrom which follow from any other union recognized in law as a valid and binding marriage.

Act No. 43 of 1916 makes provision for the appointment of marriage officers to solemnize marriages under the laws in force in the several Provinces of the Union.

Act No. 4 of 1919 which provided for the custody of marriage registers, was repealed by the *Births, Marriages, and Deaths Registration Act* of 1923. Under this Act, the duplicate original register must be transmitted to the custody of the Registrar of the Province in which the marriage was solemnized, and the original register retained in the custody of the Marriage officer who solemnized such marriage.

The following are the fees and charges payable in respect of searches and of the issue of certificates, prescribed by regulations framed under Act No. 23 of 1923 :—

	£	s.	d.
For a special licence	5	0	0
For a certificate of marriage	0	2	6
For a copy of any documentary proof	0	1	0
For each search made, per calendar year or part thereof	0	1	0

Act No. 17 of 1921 permits the marriage of a widow with her deceased husband's brother.

6. **Marriages Registered.**—The table for European marriages in this section apply only to events where both the groom and the bride were of European descent. If one only of the contracting parties was of such descent, then the marriages have been tabulated as *mixed* and are excluded from all the following tables relating to marriages of European persons.

MARRIAGES REGISTERED—UNION, 1911 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
					Number.	Annual Rate.
			EUROPEAN.			
1911–15†	25,223	4,832	21,475	7,160	58,690	8·84
1916–20†	26,900	5,387	24,121	8,142	64,550	8·87
1921	5,364	1,296	4,852	1,410	12,922	8·49
1922	5,538	1,132	4,225	1,289	12,184	7·83
1923	4,823	1,191	4,343	1,352	11,709	7·41
1924	5,345	1,287	4,642	1,468	12,742	7·91
1925	5,723	1,299	5,319	1,661	14,502	8·55
			NON-EUROPEAN.*			
1911–15†	33,390	10,004	11,035	5,373	59,802	—
1916–20†	36,847	11,434	13,181	6,923	68,385	—
1921	7,801	2,318	2,475	1,353	13,947	—
1922	8,444	2,382	2,431	1,271	14,528	—
1923	8,106	2,416	2,547	1,475	14,544	—
1924	8,923	2,778	2,624	1,507	15,832	—
1925	8,704	2,824	2,986	1,717	16,231	—

* Including mixed marriages in the Cape of Good Hope, for the details of which see the following table.

† For annual figures see previous issues of this *Year Book*.

7. **Mixed Marriages.**—The term *mixed marriage* is used to denote a marriage contracted by parties, one of whom is of European descent and the other of aboriginal or other coloured descent. There are a few such marriages contracted annually in the Cape Province, where the law permits such unions, and the following table gives the number solemnized during a period of years :—

MIXED MARRIAGES—CAPE OF GOOD HOPE, 1917 TO 1924.

DESCRIPTION.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
European males to non-European females.....	91	134	93	76	84	58	72	75
Non-European males to European females.....	62	61	25	41	29	21	23	26
TOTAL.....	153	195	118	117	113	79	95	101

8. **Marriage Rate.**—The following table shows the number of marriages of Europeans contracted per 1,000 of the estimated mean European population of each Province and the Union during a series of years. The records of marriage rates date back to the year 1911 for the whole Union and for years prior to 1918 were published in previous issues of this *Year Book*. The highest rate recorded was in the year 1920, and the lowest in 1923. The rates given below have been recalculated, and are based on revised estimates of population according to the Censuses of 1918 and 1921. Figures for earlier years were given in previous issues of this *Year Book*.

MARRIAGE RATES OF EUROPEANS—UNION, 1918 TO 1925.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1918.....	7·67	8·28	8·75	8·39	8·19
1919.....	9·15	8·34	9·41	9·00	9·15
1920.....	9·83	10·14	10·16	9·69	9·96
1921.....	8·23	9·43	8·90	7·47	8·49
1922.....	8·36	7·96	7·55	6·72	7·83
1923.....	7·20	8·15	7·62	6·98	7·41
1924.....	7·86	8·53	7·95	7·47	7·91
1925.....	8·31	8·38	8·93	8·36	8·55

9. **Denominational and Civil Marriages.**—The following tables show the numbers of marriages solemnized by ministers of religion and by civil marriage officers (Magistrates) in the Union. Table (i) gives the actual numbers during a period of years, and table (ii) the percentages of marriages solemnized by each of the chief denominations compared with those by civil marriage officers during the same period.

(i) MARRIAGES IN EACH DENOMINATION—EUROPEANS, 1918 TO 1924.

Religious Denomination.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Dutch Reformed (Nederduits Gereformeerde Kerk).....	5,020	5,482	5,782	4,652	4,815	4,408	4,501
South African Reformed.....	184	168	165	164	115	197	472
Hervormde Kerk.....	262	277	198	222	187	215	294
English Church.....	1,208	1,378	1,776	1,542	1,431	1,401	1,493
Wesleyan.....	623	667	765	729	655	624	664
Primitive Methodist.....	14	4	5	6	6	7	3
Presbyterian.....	287	334	439	379	376	382	423
Congregationalist.....	104	121	146	118	116	121	107
Baptist.....	107	117	131	131	120	93	98
Lutheran.....	100	133	65	107	113	113	143
Roman Catholic.....	345	365	409	401	368	396	423
Salvation Army.....	5	5	4	6	9	11	9
Jewish.....	238	271	289	236	269	218	233
Other.....	68	48	131	118	87	74	100
TOTAL.....	8,565	9,370	10,305	8,811	8,667	8,260	8,963
By Magistrates.....	3,354	4,143	4,629	4,111	3,517	3,449	3,779
TOTAL MARRIAGES.....	11,919	13,513	14,934	12,922	12,184	11,709	12,742

(ii) PROPORTION OF MARRIAGES OF PRINCIPAL DENOMINATIONS— EUROPEANS, 1918 TO 1924.

RELIGIOUS DENOMINATION.	PERCENTAGE OF MARRIAGES.						
	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Dutch Reformed	42·11	40·57	38·72	36·00	39·51	37·65	35·32
Other Dutch Churches	3·78	3·29	2·43	2·99	2·48	3·52	6·01
English Church	10·13	10·20	11·89	11·93	11·74	11·97	11·72
Wesleyan	5·22	4·94	5·12	5·64	5·38	5·33	5·21
Presbyterian	2·40	2·47	2·94	2·93	3·09	3·26	3·32
Roman Catholic	2·90	2·70	2·74	3·11	3·02	3·38	3·32
Jewish	2·00	2·00	1·94	1·83	2·21	1·86	1·83
Other Denominations	3·34	3·17	3·22	3·76	3·70	3·57	3·61
TOTAL DENOMINATIONS	71·88	69·34	69·00	68·19	71·13	70·54	70·34
By Magistrates	28·12	30·66	31·00	31·81	28·87	29·46	29·66
TOTAL MARRIAGES	100·00	100·00	100·00	100·00	100·00	100·00	100·00

The foregoing table shows that the tendency for persons to be married before a magistrate in preference to a marriage by a religious ceremony is increasing. It reached the percentage of 28·30 in 1915, falling to 26·95 per cent. in 1916, and rising in 1921 to 31·81 per cent., being the highest percentage recorded. The year 1922, however, shows a decline of nearly 3 per cent. This high percentage for the Union is mainly due to the large proportion of civil marriages in the Transvaal, where 45·8 per cent. of the total marriages in the year 1920 were solemnized by magistrates, while only 17·3 per cent. of the total marriages in the Orange Free State were civil marriages. The proportion of civil marriages to the total marriages registered during the year 1924 in the Union was 29·66 per cent.; in New Zealand (1923) 19·3 per cent.; and in the Commonwealth of Australia (1923) only 5·1 per cent.

10. **Marriages by Banns or Licence.**—The subjoined table gives particulars from 1918 of the number of persons in each Province and in the Union who were married respectively after the publication of banns or by licences. Figures for earlier years will be found in previous issues of this *Year Book*:—

NUMBER OF EUROPEANS MARRIED BY BANNS AND LICENCE— UNION, 1918 TO 1925.

YEAR.	CAPE OF GOOD HOPE.		NATAL.		TRANSVAAL.		ORANGE FREE STATE.		UNION.			
									No.		Per cent.	
	Banns.	L'ce.	Banns.	L'ce.	Banns.	L'ce.	Banns.	L'ce.	Banns.	L'ce.	Banns.	L'ce.
1918.	3,732	1,108	557	486	3,238	1,260	1,384	154	8,911	3,008	66·24	33·76
1919.	4,180	1,657	571	510	3,462	1,465	1,436	232	9,649	3,864	71·41	28·59
1920.	4,530	1,806	704	650	3,643	1,789	1,537	275	10,414	4,520	69·73	30·27
1921.	4,004	1,360	665	631	3,270	1,582	1,181	229	9,120	3,802	70·58	29·42
1922.	4,200	1,338	589	543	3,100	1,125	1,133	156	9,022	3,162	74·05	25·95
1923.	3,659	1,164	693	498	3,252	1,091	1,228	124	8,332	2,877	75·43	24·57
1924.	4,085	1,260	796	491	3,559	1,083	1,281	187	9,721	3,021	76·29	23·71
1925.	4,394	1,329	750	549	4,149	1,170	1,458	203	10,751	3,251	76·78	23·22

11. **Marital Condition of Persons Married.**—The table hereunder gives for a period of years particulars as to the marital condition of Europeans and non-Europeans married in the Union :—

RELATIVE MARITAL CONDITION OF PERSONS MARRIED—UNION, 1918 TO 1924.

MARITAL CONDITION.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
EUROPEANS.							
Bachelors to Spinsters	10,075	10,595	11,548	10,167	9,700	9,466	10,405
Bachelors to Widows	456	722	879	721	566	527	483
Bachelors to Divorced	176	233	284	247	230	211	245
Widowers to Spinsters	646	1,004	1,079	880	825	772	758
Widowers to Widows	317	604	700	505	493	407	450
Widowers to Divorced	35	49	73	58	54	44	62
Divorced to Spinsters	151	183	220	195	205	175	209
Divorced to Widows	33	56	85	73	56	47	68
Divorced to Divorced	24	61	58	70	55	56	60
Previously married *de facto*	6	6	8	6	—	4	2
TOTAL	11,919	13,513	14,934	12,922	12,184	11,709	12,742
NON-EUROPEANS.							
Bachelors to Spinsters	9,881	11,683	11,810	10,795	11,362	11,524	12,810
Bachelors to Widows	244	351	399	402	384	362	372
Bachelors to Divorced	12	23	17	8	21	14	24
Widowers to Spinsters	757	1,492	1,583	1,381	1,438	1,230	1,264
Widowers to Widows	255	532	527	492	460	420	385
Widowers to Divorced	7	13	21	9	16	14	17
Divorced to Spinsters	36	58	60	33	37	52	60
Divorced to Widows	7	4	4	9	6	7	9
Divorced to Divorced	5	9	4	1	2	1	3
Previously married *de facto* or by Native Custom	721	829	880	817	802	920	888
TOTAL	11,925	14,994	15,305	13,947	14,528	14,544	15,832

12. **Ages and Marital Condition of Persons Married.**—Table (i) hereunder gives particulars as to the ages and marital condition of Europeans married in the Union in 1923 ; table (ii) gives the same particulars with respect to non-Europeans, and tables (iii) and (iv) similar information for the year 1924. Tables (v) and (vi) give particulars as to the relative ages of Europeans married in the Union during the years 1923 and 1924. Table (vii) gives the numbers and percentages at each age period of bridegrooms and brides who married during a period of years. It will be observed that the age at which men most commonly marry was between twenty-five and twenty-nine years throughout the whole period, while that for brides remained constant at from twenty to twenty-four years.

(i) AGES AND MARITAL CONDITION OF EUROPEANS MARRIED, 1923.

AGES.	BRIDEGROOMS.					BRIDES.				
	Bachelors.	Widowers.	Divorced.	Previously Married *de facto*.	Total.	Spinsters.	Widows.	Divorced.	Previously Married *de facto*.	Total.
16 years and under	—	—	—	—	—	260	—	—	—	260
17 years	5	—	—	—	5	534	—	—	—	534
18 „	23	—	—	—	23	881	—	—	—	881
19 „	97	—	—	—	97	1,128	4	1	—	1,133
20 „	205	—	—	—	205	883	4	4	—	891
21–24 „	2,596	3	5	2	2,606	3,538	55	23	1	3,617
25–29 „	4,177	69	30	—	4,276	2,169	162	99	1	2,431
30–34 „	1,828	165	52	1	2,046	621	208	81	1	911
35–39 „	738	189	61	—	988	233	178	51	—	462
40–44 „	299	185	53	—	537	100	113	26	1	240
45–49 „	132	166	38	—	336	45	95	15	—	155
50–54 „	73	158	23	1	255	14	80	5	—	99
55–59 „	22	106	7	—	135	4	33	3	—	40
60–64 „	4	98	8	—	110	2	28	3	—	33
65–69 „	3	53	1	—	57	—	14	—	—	14
70–74 „	2	17	—	—	19	1	6	—	—	7
75 years and over	—	14	—	—	14	—	1	—	—	1
TOTAL	10,204	1,223	278	4	11,709	10,413	981	311	4	11,709

(ii) AGES AND MARITAL CONDITION OF NON-EUROPEANS MARRIED, 1923.

AGES.	BRIDEGROOMS.					BRIDES.				
	Bachelors.	Widowers.	Divorced.	Previously Married *de facto*.	Total.	Spinsters.	Widows.	Divorced.	Previously Married *de facto*.	Total.
16 years and under	1	—	—	—	1	82	—	1	3	86
17 years	3	—	—	—	3	154	—	—	6	160
18 „	23	—	—	—	23	603	—	—	13	616
19 „	45	—	—	1	46	826	—	—	20	846
20 „	171	—	—	8	179	1,421	2	—	35	1,458
21–24 „	2,600	14	1	88	2,703	5,706	43	2	206	5,957
25–29 „	4,849	109	9	196	5,163	2,544	165	7	230	2,946
30–34 „	2,215	280	12	159	2,666	739	168	10	139	1,056
35–39 „	1,008	314	13	145	1,480	360	153	6	98	617
40–44 „	408	273	7	96	784	168	122	1	60	351
45–49 „	272	228	6	76	582	109	75	1	52	237
50–54 „	141	163	8	60	372	50	27	1	16	94
55–59 „	58	121	3	34	216	25	18	—	20	63
60–64 „	62	86	—	24	172	8	9	—	12	29
65–69 „	20	42	1	14	77	4	7	—	5	16
70–74 „	10	21	—	8	39	4	—	—	3	7
75 years and over	14	13	—	11	38	3	—	—	2	5
TOTAL	11,900	1,664	60	920	14,544	12,806	789	29	920	14,544

(iii) AGE AND MARITAL CONDITION OF EUROPEANS MARRIED, 1924.

AGE.	BRIDEGROOMS.					BRIDES.				
	Bachelors.	Widowers.	Divorced.	Previously Married *de facto*.	Total.	Spinsters.	Widows.	Divorced.	Previously Married *de facto*.	Total.
16 years and under.....	—	—	—	—	—	262	—	—	—	262
17 years.....	3	—	—	—	3	584	—	—	—	584
18 ,, ...	23	—	—	—	23	959	—	1	—	960
19 ,, ...	90	—	—	—	90	1,148	—	—	1	1,149
20 ,, ...	238	—	—	—	238	1,206	8	6	1	1,221
21–24 ,, ...	2,918	9	3	2	2,932	3,881	36	34	—	3,951
25–29 ,, ...	4,464	73	35	—	4,572	2,258	134	102	—	2,494
30–34 ,, ...	2,091	167	63	—	2,321	649	216	97	—	962
35–39 ,, ...	743	192	80	—	1,015	254	185	60	—	499
40–44 ,, ...	311	206	61	—	578	93	153	35	—	281
45–49 ,, ...	146	159	45	—	350	36	112	19	—	167
50–54 ,, ...	63	156	26	—	245	18	76	7	—	101
55–59 ,, ...	22	107	14	—	143	9	35	5	—	49
60–64 ,, ...	8	96	6	—	110	3	29	—	—	32
65–69 ,, ...	2	51	3	—	56	—	8	—	—	8
70–74 ,, ...	2	35	1	—	38	—	6	1	—	7
75 years and over.	—	18	—	—	18	—	1	—	—	1
Unspecified.....	9	1	—	—	10	12	2	—	—	14
TOTAL.....	11,133	1,270	337	2	12,742	11,372	1,001	367	2	12,742

(iv) AGE AND MARITAL CONDITION OF NON-EUROPEANS MARRIED, 1924.

AGE.	BRIDEGROOMS.					BRIDES.				
	Bachelors.	Widowers.	Divorced.	Previously Married *de facto*.	Total.	Spinsters.	Widows.	Divorced.	Previously Married *de facto*.	Total.
16 years and under.....	1	—	—	—	1	81	—	—	1	82
17 years.....	2	—	—	—	2	191	—	—	3	194
18 ,, ...	29	—	—	—	29	735	—	—	13	748
19 ,, ...	70	—	—	2	72	938	2	—	17	957
20 ,, ...	196	—	—	10	206	1,664	3	1	34	1,702
21–24 ,, ...	3,087	12	—	72	3,171	6,338	40	—	203	6,581
25–29 ,, ...	5,383	117	5	196	5,701	2,664	160	10	219	3,053
30–34 ,, ...	2,386	260	21	160	2,827	821	185	12	117	1,135
35–39 ,, ...	1,048	293	17	105	1,463	357	136	11	98	602
40–44 ,, ...	461	285	12	116	874	173	106	2	80	361
45–49 ,, ...	271	263	12	80	626	84	75	7	45	211
50–54 ,, ...	121	174	1	60	356	52	31	1	24	108
55–59 ,, ...	61	108	3	35	207	11	11	—	15	37
60–64 ,, ...	45	95	1	18	159	11	10	—	11	32
65–69 ,, ...	24	32	—	19	75	5	3	—	3	11
70–74 ,, ...	10	18	—	7	35	—	—	—	2	2
75 years and over.	7	8	—	8	23	—	—	—	1	1
Unspecified.....	4	1	—	—	5	9	4	—	2	15
TOTAL.....	13,206	1,666	72	888	15,832	14,134	766	44	888	15,832

(v) RELATIVE AGES OF PERSONS MARRIED—EUROPEANS, UNION, 1923.

AGES OF BRIDEGROOMS.	TOTAL.	AGES OF BRIDES.									
		Under 15.	15 to 20.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 and over.	Not Stated.
Under 20 years.....	125	—	97	24	3	1	—	—	—	—	—
20 years.....	205	—	157	35	12	1	—	—	—	—	—
21–24 ,, ...	2,606	—	1,310	968	264	49	10	4	1	—	—
25–29 ,, ...	4,276	—	1,450	1,573	1,010	193	33	9	8	—	—
30–34 ,, ...	2,046	—	480	626	593	256	65	18	8	—	—
35–39 ,, ...	988	—	140	235	297	171	94	40	10	1	—
40–44 ,, ...	537	—	38	88	142	118	83	48	15	5	—
45–49 ,, ...	336	—	15	39	64	49	88	45	27	9	—
50–54 ,, ...	255	—	8	16	27	45	51	37	33	38	—
55–59 ,, ...	135	—	3	6	12	15	25	20	25	29	—
60–64 ,, ...	110	—	—	4	3	13	8	11	19	52	—
65–69 ,, ...	57	—	1	2	2	—	4	4	6	38	—
70–74 ,, ...	19	—	—	1	1	—	1	1	2	13	—
75 years and over..	14	—	—	—	1	—	—	3	1	9	—
TOTAL.....	11,709	—	3,699	3,617	2,431	911	462	240	155	194	—

(vi) RELATIVE AGES OF PERSONS MARRIED—EUROPEANS, UNION, 1924.

AGES OF BRIDEGROOMS.	TOTAL.	AGES OF BRIDES.									
		Under 15.	15 to 20.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 and over.	Not Stated.
Under 20 years.....	116	1	91	18	3	3	—	—	—	—	—
20 years.....	238	1	170	52	9	2	2	2	—	—	—
21–24 ,, ...	2,932	3	1,522	1,089	270	37	8	2	1	—	—
25–29 ,, ...	4,572	—	1,559	1,693	1,048	205	45	12	7	—	3
30–34 ,, ...	2,321	1	554	723	646	279	89	24	3	2	—
35–39 ,, ...	1,015	2	176	243	255	195	104	28	11	1	—
40–44 ,, ...	578	—	54	85	155	103	94	57	21	8	1
45–49 ,, ...	350	—	25	27	63	66	75	53	33	8	—
50–54 ,, ...	245	—	9	13	28	42	48	49	30	26	—
55–59 ,, ...	143	—	4	5	10	19	22	22	31	30	—
60–64 ,, ...	110	—	4	1	5	7	9	21	18	45	—
65–69 ,, ...	56	—	—	2	1	4	2	5	7	35	—
70–74 ,, ...	38	—	—	—	1	—	1	5	4	27	—
75 years and over..	18	—	—	—	—	—	—	1	1	16	—
Not stated.....	10	—	—	—	—	—	—	—	—	—	10
TOTAL.....	12,742	8	4,168	3,951	2,494	962	499	281	167	198	14

(vii) AGE AT MARRIAGE OF EUROPEANS.—NUMBER AND PROPORTION PER CENT., 1922 TO 1924.

Ages (Years).	Bridegrooms.						Brides.					
	Number.			Percentage.			Number.			Percentage.		
	1922.	1923.	1924.	1922	1923.	1924.	1922.	1923.	1924.	1922.	1923.	1924.
13.	—	—	—	—	—	—	3	—	2	0·02	—	0·02
14.	—	—	—	—	—	—	9	—	6	0·07	—	0·05
15.	—	—	—	—	—	—	35	40	44	0·29	0·34	0·35
16.	—	—	—	—	—	—	257	220	210	2·11	1·88	1·65
17.	5	5	3	0·04	0·04	0·02	573	534	584	4·70	4·56	4·58
18.	25	23	23	0·20	0·20	0·18	918	881	960	7·54	7·52	7·53
19.	93	97	90	0·76	0·83	0·71	966	1,133	1,149	7·93	9·68	9·02
20.	170	205	238	1·40	1·75	1·87	765	891	1,221	6·28	7·61	9·58
21–24.	2,719	2,606	2,932	22·32	22·25	23·01	3,929	3,617	3,951	32·25	30·89	31·01
25–29.	4,353	4,276	4,572	35·73	36·52	35·88	2,578	2,431	2,494	21·16	20·76	19·57
30–34.	2,189	2,046	2,321	17·97	17·47	18·22	1,029	911	962	8·45	7·78	7·55
35–39.	1,042	988	1,015	8·55	8·44	7·97	508	462	499	4·17	3·95	3·92
40–44.	619	537	578	5·08	4·59	4·54	252	240	281	2·07	2·05	2·21
45–49.	388	336	350	3·18	2·87	2·75	160	155	167	1·31	1·32	1·31
50–54.	225	255	245	1·85	2·18	1·92	93	99	101	0·76	0·85	0·79
55–59.	141	135	143	1·16	1·15	1·12	54	40	49	0·44	0·34	0·38
60–64.	102	110	110	0·84	0·94	0·86	37	33	32	0·30	0·28	0·25
65–69.	60	57	56	0·49	0·49	0·44	13	14	8	0·11	0·12	0·06
70–74.	32	19	38	0·26	0·16	0·30	3	7	7	0·02	0·06	0·05
75 and over.	21	14	18	0·17	0·12	0·14	2	1	1	0·02	0·01	0·01
Unspecified..	—	—	10	—	—	0·07	—	—	14	—	—	0·11
TOTAL.	12,184	11,709	12,742	100·00	100·00	100·00	12,184	11,709	12,742	100·00	100·00	100·00

13. **Marriages of Minors.**—The number of marriages of minors in the Union during a series of years and the proportion per cent. of that number to the total number of marriages are given below.* On comparison with figures for the United Kingdom and various British Dominions, the percentage of bridegrooms under twenty-one years is lower in the Union, but, on the other hand, with the exception of Canada, the percentage of brides who marry under that age is higher. In England and Wales the percentage in 1923 was: Grooms 4·24, brides 14·29; in Scotland, 1923—Grooms 6·30, brides 17·97; in New Zealand, 1923—Grooms 3·23, brides 16·42; in Canada, 1923—Grooms 4·63, brides 31·04; and in the Commonwealth of Australia, 1924—Grooms 4·86, brides 21·18.

MARRIAGES OF MINORS—EUROPEANS, 1918 TO 1925.

Year.	Bridegrooms.		Brides.		Percentage of Minors.	
	Adults.	Minors.	Adults.	Minors.	Bride-grooms.	Brides.
1918.....	11,675	244	8,521	3,398	2·05	28·50
1919.....	13,280	233	9,929	3,584	1·72	26·52
1920.....	14,668	266	11,132	3,802	1·78	25·46
1921.....	12,668	254	9,395	3,527	1·97	27·29
1922.....	11,891	293	8,658	3,526	2·40	28·94
1923.....	11,379	330	8,010	3,699	2·82	31·59
1924.....	12,388	354	8,566	4,176	2·78	32·77
1925.....	13,601	4 1	9,388	4,614	2·86	32·95

* Figures for earlier years are given in previous issues of this *Year Book*.

14. **Mark Signatures at Marriage.**—Particulars are given below of the number of Europeans married in the Union and each Province during a series of years who signed at marriage by mark only and the percentage of such number to the total number married :—

NUMBER OF MARK SIGNATURES AT MARRIAGE—EUROPEANS, 1916 TO 1924.

PROVINCE AND SEX.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
(i) PROVINCES.—SIGNATURES BY MARK.									
Cape of Good Hope.....	65	84	72	79	70	68	56	40	55
Natal.....	3	5	6	6	6	23	3	2	3
Transvaal.....	17	48	44	28	13	36	28	23	19
Orange Free State	12	13	16	11	12	9	10	4	3
UNION.....	97	150	138	124	101	136	97	69	80
(ii) SEXES.—SIGNATURES BY MARK.									
Husband only..	39	67	65	52	53	58	46	29	47
Wife only.....	40	53	50	54	36	54	39	33	24
Both parties....	18	30	23	18	12	24	12	7	9

CHAPTER XXVI.

NATIVE AFFAIRS.

§ 1. Native Population of the Union.

1. **Native Population.**—The number of natives in the Union at various census dates was as follows :—

NUMBER OF NATIVES IN UNION AREA AT VARIOUS CENSUSES (EXCLUSIVE OF MIXED AND OTHER COLOURED POPULATION).

Province.	1904.	1911.		1921.	
	Number of Natives.	Number of Natives.	Percentage of Total Population.	Number of Natives.	Percentage of Total Population.
Cape of Good Hope.	1,424,787	1,519,939	59·26	1,640,162	58·94
Natal.....	904,041	953,398	79·85	1,139,804	79·74
Transvaal.....	937,127	1,219,845	72·34	1,495,869	71·65
Orange Free State..	225,101	325,824	61·69	421,978	67·11
UNION.....	3,491,056	4,019,006	67·28	4,697,813	67·80

2. **Distribution of Native Population.**—The following table indicates, from the returns of the Population Censuses of 1911 and 1921, the distribution of the Bantu population of the Union. The principal areas in which the natives were congregated in those years and the density per square mile in the case of each group shown are given according to Provinces. It will be seen that in the Cape Province the native population is centred in the Native Territories and a number of eastern districts, with King William's Town as the area with the densest native population. In Natal about one-quarter of the native population is to be found in Zululand, while in the rest of the Province the natives are distributed evenly throughout the various districts. In Zululand they are, however, less densely settled than in the remainder of Natal. In the Transvaal the bulk of the native population is contained in the Witwatersrand area, which is largely urban and has a high density, and in the northern portion of the Province, forming the greater part of the Bushveld. In the Orange Free State the natives are principally located in the central and eastern districts, adjoining the Basutoland border.

DISTRIBUTION OF NATIVE POPULATION IN THE UNION.

Province and Area.	1911.		1921.	
	Native Population.	Per Square Mile.	Native Population.	Per Square Mile.
Cape of Good Hope :—				
Native Territories—				
Transkei	871,602	53·29	938,990	57·41
Glen Grey	49,629	54·72	41,836	46·13
Herschel	37,498	54·82	36,622	53·54
Eastern Districts—				
King William's Town	94,303	71·77	91,998	70·01
Albany, Alexandria, Bathurst, Cathcart, East London, Fort Beaufort, Komgha, Peddie, Port Elizabeth, Queenstown, Somerset East, Stutterheim, Uitenhage, Victoria East and Wodehouse	210,142	13·51	229,862	14·77
Rest of Province	256,765	1·06	300,854	1·24
TOTAL NATIVE POPULATION	1,519,939	5·49	1,640,162	5·92
Natal :—				
Zululand	214,969	20·62	250,829	24·06
Rest of Natal	738,429	29·71	888,975	35·76
TOTAL NATIVE POPULATION	953,398	27·02	1,139,804	32·30
Transvaal :—				
Witwatersrand	278,815	155·50	303,379	169·20
Pietersburg	192,183	144·50	214,693	161·42
Zoutpansberg	133,840	12·51	154,362	14·43
Lydenburg	105,605	10·38	124,093	12·19
Pretoria	97,625	14·70	119,297	17·96
Waterberg	68,376	4·29	80,729	5·07
Middelburg	49,853	9·91	75,556	15·02
Rustenburg	46,589	4·95	64,849	6·89
Rest of Province	246,959	4·99	358,911	7·26
TOTAL NATIVE POPULATION	1,219,845	11·04	1,495,869	13·54
Orange Free State :—				
Harrismith	39,936	12·65	45,694	14·48
Bethlehem	27,303	11·06	36,021	14·60
Bloemfontein	27,672	6·29	35,463	8·06
Kroonstad	21,098	6·13	35,370	10·28
Winburg	23,133	6·24	28,069	7·57
Senekal	17,632	10·68	22,997	13·93
Vrede	16,472	7·47	22,799	10·34
Heilbron	14,475	7·78	22,543	12·11
Thaba 'Nchu	23,608	17·99	22,364	17·05
Ladybrand	16,935	15·27	20,390	18·39
Ficksburg	17,259	23·45	20,320	27·61
Rest of Province	80,301	3·30	109,948	4·52
TOTAL NATIVE POPULATION	325,824	6·47	421,978	8·37
Union	4,019,006	8·50	4,697,813	9·93

§ 2. Representation.

1. **Parliament.**—The *South Africa Act* (§ 36) preserves for the election of members of the House of Assembly the franchise laws of the different colonies, which united to form the Union, as they existed on the 31st May, 1910. In the Cape Province no distinction was made between European and native, and the names of a large number of natives who are qualified in respect of property or salary, as well as educationally, are included in the electoral rolls. In Natal, natives are only entitled to become parliamentary voters with the specific authority of the Governor-General (Law No. 11 of 1865). The number so authorized at the present time is negligible.* The Letters Patent of 1906 and 1907 in respect of the Transvaal and Orange River Colony, under which the franchise was regulated, granted manhood suffrage

* See Chapter II.

to all persons of European descent. There is therefore no provision for the direct representation of the natives of the Transvaal and Orange Free State Provinces in the House of Assembly. The *South Africa Act* makes special provision to protect the franchise rights of coloured persons in the Cape of Good Hope as they existed at the date of establishment of the Union (§ 35).

In the Senate provision is made under the constitution [*South Africa Act*, § 24 (ii)] for the inclusion of four members nominated by the Governor-General who " shall be selected on the ground mainly of their thorough acquaintance, by reason of their official experience or otherwise, with the reasonable wants and wishes of the coloured races in South Africa." The four Senators so nominated at present are Senators Sir Walter Stanford, H. G. Stuart, Dr. A. W. Roberts, and General D. J. E. Opperman.

2. **Native Affairs Commission.**—This Commission, established under the *Native Affairs Act* (No. 23 of 1920), is an advisory body consisting of not less than three or more than five members, appointed by the Governor-General and presided over by the Minister of Native Affairs. The members, though in receipt of salaries as Commissioners, may sit in either House of Parliament. The functions and duties of the Commission " include the consideration of any matter relating to the general conduct of the administration of Native Affairs, or to legislation in so far as it may affect the native population (other than matters of departmental administration) and the submission to the Minister of its recommendations on any such matters." Its functions are thus merely advisory, but adequate means are reserved to it of placing its views before Cabinet and Parliament, should its recommendations not be accepted. Regulations in respect of the Commission were published under Government Notice 2004 of 1920.

The Commission, as at present constituted, was appointed in 1920 with the following membership: Senator the Honourable A. W. Roberts, D.Sc., F.R.S.E., F.R.A.S., Brigadier-General L. A. S. Lemmer, M.L.A., and G. T. Loram, M.A., LL.B., Ph.D. In the early stages of its activities, which commenced in April, 1921, the Commission accepted as the first principles of its policy (*a*) that it was primarily and essentially the friend of the native people, and, as such, the needs, aspirations and progress of the natives should be considered sympathetically by it; (*b*) that it was the adviser of the Government in matters affecting the interests of the natives; (*c*) that it should endeavour to win the confidence of the natives; and (*d*) that it should strive to educate public opinion so as to bring about the most harmonious relations possible between white and black in South Africa. The Commissioners have travelled widely throughout the Union for the purposes of the closer study of native problems and of coming into contact personally with native points of view. They have dealt with a number of specific matters of native administration and have investigated certain general questions of native policy, such as native taxation and education, the pass laws, the control of natives in urban areas, land administration, and the extension of the system of local native councils as contemplated by the *Native Affairs Act*, 1920. They have in addition conducted enquiries into special matters of native interest referred to them by the Government for investigation and report. Fuller information may be found in the first annual statutory report of the Commission for the year 1921 (U.G. 15 of 1922) and in the later annual reports of the Commission.

3. **Native Conferences.**—The *Native Affairs Act*, 1920, also revived for the Union the obsolescent provision of the Transvaal Law for the summoning of conferences of native persons and bodies representative of native opinion, with the object of enabling the Government to gauge more accurately the state of native thought and feeling and of affording to those not otherwise represented, the opportunity of expressing their views. The first of such conferences, which was attended also by the Native Affairs Commission, was held at Bloemfontein in September, 1922, for the purpose of discussing the provisions of the proposed *Native (Urban Areas) Bill* (see § 9 below). In September, 1923, a further conference was held at Pretoria at which the provisions of the *Native Registration and Protection Bill*, a *Native Marriage Bill*, and other matters were considered. A similar conference was held at Pretoria in September, 1924, when the introduction of a uniform system of native taxation was discussed. It is intended that at least one such conference should be summoned annually to deal with such matters of native interest as may at the time be outstanding.

§ 3. Administration.

1. **General.**—In terms of section 147 of the *South Africa Act*, the control and administration of native affairs throughout the Union are vested in the Governor-General-in-Council who is authorized to exercise all special powers in regard to native administration vested at the time in the Governors of the Colonies entering the Union, or exercised by other authorities as superior chiefs. The executive authority rests with a Minister of Native Affairs, who is in control of a Department of State under a permanent Secretary for Native Affairs with an Under Secretary and Staff. The department is responsible for the administration of all legislation specially affecting the interests of natives and the supervision and control of their

general welfare, and is referred to generally by all other departments of State in regard to matters falling within their purview in which questions involving native policy, administration, or interest are involved.

Various phases of the administration of the Department are dealt with in the following sections of this chapter. A report on the general position of native affairs, and on the work of the Department for the years 1919 to 1921, was published in 1922, and it is intended in future to issue such reports triennially.

2. **District Administration.**—The system of district administration differs in the various Provinces. In the *Cape of Good Hope* the Transkeian Territories, a purely native area comprising that portion of the Province lying to the east of the Kei River, are administered by a Chief Magistrate and twenty-seven magistrates who are officers of the Native Affairs Department. The Chief Magistrate's headquarters are at Umtata, and he is also President of the Native Appeal Court, which sits periodically at fixed centres throughout the Territories. To the west of the Kei the most prominently native districts of the Cape Province are under the control, for purposes of native administration, of a Chief Native Commissioner stationed at King William's Town. In the two almost purely native districts of Herschel and Glen Grey, the magistrates are officers of the Native Affairs Department. In the remaining districts the magistrates of the Department of Justice are charged with the administration of native affairs subject, within his area and in respect of native affairs, to the supervision of the Chief Native Commissioner. In the more populous native areas the magistrates are assisted by superintendents of natives, who are officials of the Native Affairs Department.

In *Natal* a Chief Native Commissioner, with headquarters at Pietermaritzburg, deals administratively with native affairs throughout the Province, including Zululand. He is assisted by a staff of inspectors of locations and mission reserves, who are officers of the Native Affairs Department. In a number of districts, however, the Department is entirely dependent on assistance rendered by the magistrates attached to the Department of Justice.

In the *Transvaal* all magistrates are controlled by the Department of Justice, but are *ex officio* Native Commissioners, and in this capacity are for practical purposes officers of the Department of Native Affairs. In the more densely populated native areas native affairs are administered, under the Native Commissioners, by Native Sub-Commissioners and detached clerks who are officers of the Native Affairs Department. In other districts native affairs work has been specially allocated to particular members of the magistrates' staffs.

In the *Orange Free State* the magistrates of the Department of Justice act as representatives of the Department assisted, in the Harrismith and Thaba 'Nchu districts (which contain native reserves), by supervisors who are officers of the Native Affairs Department.

It is an understanding between the Departments of Justice and Native Affairs that, in respect of magistrates under the control of the former in certain districts in which there is a large native population, the selection of the officer to occupy the post should be the subject of consultation between the two Departments.

In all four Provinces of the Union there are native chiefs and headmen, many of whom are subsidized by the Government. In a limited number of cases fairly substantial allowances are paid under agreements entered into at the time of annexation, or in recognition of services rendered. In the large majority of cases, however, the allowances are inconsiderable in amount and are made as a token of recognition rather than as remuneration for services. Their powers, duties, and jurisdiction vary in different parts of the country. All serve under district officials and are in charge of tribes and locations, as the case may be.

3. **Native Labour Department.**—The Director of Native Labour, an officer of the Department, is charged with executive functions, under the Secretary, in those labour districts proclaimed under the *Native Labour Regulation Act*, 1911, which lie outside the areas controlled by the Chief Magistrate, Transkei, and the Chief Native Commissioners, Natal and Cape (see § 11 below). The most important of these districts are situated in the Witwatersrand gold mining area, and the Director's headquarters are at Johannesburg. He is also Chief Native Commissioner for the Witwatersrand area, and under him are three Native Sub-Commissioners stationed at different points in the mining area and in control of a staff of inspectors and pass officials who visit the compounds, deal judicially with petty offences, and generally watch over the welfare and interests of natives employed on the gold mines. The Director administers the other labour districts through the local magistrates. He also advises the Government generally in respect of native labour matters throughout the Union.

§ 4. Local Government.

1. **Glen Grey District Council.**—(i) *Constitution.*—This Council was established under the provisions of the *Glen Grey Act* (Cape of Good Hope), No. 25 of 1894. It is composed of the magistrate of Lady Frere as chairman and twelve native members, six nominated by the Governor-General and six elected by the Location Boards also established under the Act.

(ii) *Functions and Financial Statistics.*—The revenues of the Council are derived from the rates levied in terms of the Act, and are spent, subject to the approval of the Governor-General, in the interests of natives of the district on dipping of cattle, roads, the encouragement of agriculture, irrigation and public health. It has constructed and maintains a number of dipping tanks; it possesses an experimental farm, which is of service in raising the standard of agriculture in the district, and it is responsible for the upkeep of all roads in the district excepting the main road. The general position of the Council has been very much relieved by the action of the Provincial Council in assuming responsibility for the payment of all teachers' salaries, and the expenditure on education, previously one of the largest items in the Council's accounts, has been diverted to other purposes.

2. **Transkeian Territories General Council.**—(i) *Constitution.*—The establishment of native councils in the Transkeian Territories, under a formal constitution, dates from the beginning of 1895, when *District Councils* were created in the districts of Butterworth, Idutywa, Nqamakwe, and Tsomo, the four being united in what was called the *Transkeian General Council*, whose meetings were held at Butterworth. In 1899 the district of Kentani entered the system. In 1903 it was extended to seven districts of Tembuland and East Griqualand, when the name of the larger body was changed to *Transkeian Territories General Council*, meeting yearly in Umtata. Since then seven other districts have been added. Those now embraced by the operations of the *Transkeian Territories General Council* are therefore nineteen, namely, Butterworth, Elliotdale, Engcobo, Idutywa, Kentani, Matatiele, Mount Ayliff, Mount Fletcher, Mount Frere, Mqanduli, Nqamakwe, Qumbu, St. Marks, Tsolo, Tsomo, Umtata, Umzimkulu, Willowvale, and Xalanga, comprising the whole of the Transkei, the whole of Tembuland and the whole of East Griqualand (except Mount Currie). The general policy of the Government has been opposed to forcing the system upon the people at large in advance of their fitness for it or their desire to have it. The practice is to await the seasonable opportunity in each district considered by itself, and then to call upon the people to express their wishes in the matter.

A *District Council* consists of a Resident Magistrate and six members, and is constituted in the following way. At the formation, and thereafter triennially, nominations for membership are called for. Two of these are made by the Governor-General, and four by the local representatives of the ratepayers. In districts where survey and native individual tenure have been introduced, or where the *District Council* asks for election on a popular basis, the local nominations are made by an *ad hoc* body of title-holders or hut-tax payers, consisting of three persons of each ward elected by the ratepayers. In other districts the nominations are made by the headmen.

Each *District Council* meets quarterly, or oftener if summoned by the magistrate, and at each November meeting nominates two of its number as members of the *General Council* during the following year. The Governor-General nominates another member usually, but not necessarily, a *District Councillor;* and these members from the various districts, together with the magistrates, form the *Transkeian Territories General Council*, which consists at present of the Chief Magistrate of the Territories as presiding officer, nineteen magistrates, and fifty-seven native members. The annual session of this body is called during the autumn months of the year by summons from the Chief Magistrate, and usually lasts for a fortnight. The Chief Magistrate is empowered to convene general extraordinary sessions.

(ii) *Functions.*—These Councils (District and General) are constituted as advisories to the administration, associating the people with the control of local funds, giving them a voice in the disposal of affairs intimately affecting their own interest, training them to constitutional methods of expressing their wishes in regard to general and local policy, and also keeping the Government and its officers in touch with native feeling. Debates cover a wide range of subjects, including the revision of laws particularly affecting the native population, such as native marriage and inheritance, education, diseases amongst stock, control of commonages, forests, etc. Questions come before the *General Council* directly by motions introduced by magistrates or members, and also on submission from *District Councils* and references from Government, frequent use being made of the committee system. The resolutions of the Councils (District or General) having been taken on the subjects placed before them, the responsibility for action thereon rests upon the magistrates, the Treasurer, the Chief Magistrate, the Minister, or the Governor-General, according to the importance of the matters involved.

(iii) *Functions of District Councils.*—In local administration the various *District Councils* stand to the *General Council* in the relation of individual parts of a single body. They are the executive organs of the *General Council*, which distributes amongst them such duties as road maintenance, dipping operations, and supervision of commonages; but remains financially responsible for their actions. Strictly speaking, they have no separate income or expenditure, but there is one common treasury into which all revenues

flow, and which is chargeable with the cost of the different services authorized. This arrangement has the twofold merit of allowing for local variations and ensuring, under better control, the accumulation of funds which enable the undertaking of projects beyond the means of any single district organization.

(iv) *Financial System.*—The main source of revenue is a rate levied annually by the Governor-General, which may be varied in amount according to the advice of the *General Council.* It has, however always been fixed at ten shillings, payable roughly by every native male adult in the area under jurisdiction, which embraces the whole of the magisterial (Council) districts, except portions under municipal or village management and, in the case of Matatiele, private farms.

In general, the *District Councils* are responsible for the initiation of *expenditure* proposals, which are collated and laid before the *General Council* in the form of annual estimates of expenditure. After revision by the Treasurer the votes of the Council are taken thereon, and they are then submitted for the approval of the Governor-General. Council operations embrace the maintenance of about 3,200 miles of roads and the construction of new ones at a charge of about £25,000 a year, the construction and repair of dipping tanks, the provision and upkeep of wattle plantations; the dipping of large stock, grants in aid of scholastic education, hospitals; and lastly its own institutions for the teaching of agriculture, and for the improvement of stock breeding amongst natives and experimenting in and encouraging the cotton-growing industry. As a general rule, the Council is not in receipt of Government or Provincial grants, nor does it, within its area, levy rates upon Europeans, who nevertheless share incidentally in most of the benefits accruing to ratepayers from Council expenditure.

(v) *Education.*—Prior to the 1st July, 1920, the Council paid *pro rata* with the Education Department (from ten to twenty shillings in the £1) towards teachers' salaries, school furniture, and sewing material, limiting its assistance to tuition up to Standard IV. It had no part in the appointment of teachers, management of schools, or other matters of educational organization or policy. From the 1st July, 1920, the Cape Provincial Council took over the payment of the whole of the teachers' salaries—including the *pro rata* grants previously paid from Council funds. The General Council resolved to pay a temporary allowance of 20 per cent. of their Provincial grants to all teachers at schools previously aided by it, to take effect from 1st July, 1920, and to cease as soon as the Provincial scale of grants to native teachers was increased. This temporary allowance is still being paid. With regard to agricultural education, the Council possesses two schools of agriculture and three agricultural farms which receive no monetary aid from either the Union or Provincial Government, but which occasionally obtain advice from departmental specialists. The School of Agriculture at Tsolo started in 1913 with four students. At present there are fifty students, which is the maximum number which can be accommodated. To meet the growing demand another school of agriculture was opened at Teko, in the Butterworth district, early in 1922, which provides accommodation for fifty students. The Council pays and controls the work of native agricultural demonstrators, numbering thirty-eight, distributed over the whole of the districts under the Transkeian Territories General Council. The duty of these demonstrators is to promote better methods of agriculture among the natives.

(vi) *Roads and Bridges.*—There are two rural road authorities, the *Provincial Council* and the *General Council,* whose respective spheres of operations have never been defined by law or formal agreement. Pending such a settlement the *Provincial Council* maintains the great trunk roads and a few others, municipal and village bodies keep roads within their areas, and the remainder are left to the *General Council.* The latter confines itself chiefly to roads in native locations, but occasionally repairs a thoroughfare through a European or native farming settlement, or a magisterial reserve with no local management. The *General Council* is the only body which constructs roads in Council districts. It receives no grants towards construction or maintenance of roads or bridges.

(vii) *Public Health.*—The Council has no prescribed functions in regard to the control of public health, and the question of its *pro rata* contribution on Government expenditure has remained in abeyance. But it pays the local *pro rata* share of the cost of treating its ratepayer population in hospitals of the Territories.

(viii) *Large Stock Dipping Operations.*—From the 1st July, 1915, cattle dipping operations in the *Transkeian Territories General Council* districts have been paid for from funds supplied by the natives, by means of stock rates. The magistrate and *District Council* of each district, with the exception of Idutywa, are responsible for carrying out the dipping operations. Subject to control by the Chief Magistrate and co-operation with the Veterinary Department, they take the necessary steps for suppressing East Coast Fever. The Engineer's department of the *General Council* arranges for and supervises the construction and repair of cattle tanks in native areas.

(ix) *Statistics.*—The following is a statement showing the revenue and expenditure for a series of years.

TRANSKEIAN TERRITORIES GENERAL COUNCIL—REVENUE AND EXPENDITURE, 1917–18 TO 1924–25.

Heading.	1917–18.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	£	£	£	£	£	£	£	£
Revenue.....	101,759	103,673	103,921	97,003	101,524	109,017	122,808	125,889
Expenditure....	103,866	108,840	99,999	105,241	99,562	102,755	113,668	120,566

3. **Pondoland General Council.**—(i) *Constitution.*—In 1911 the Council system was extended to the districts of Libode, Ngqeleni, and Port St. Johns, collectively known as Western Pondoland. There are three *District Councils*, and a *General Council* known as the *Western Pondoland General Council* constituted on lines analogous to those of the *Transkeian Territories General Council.* The principal difference in constitution between the two is that the members, who are elected in the case of the *Transkeian Territories General Council*, are, in Western Pondoland, nominated by the Paramount Chief.

(ii) *Functions.*—The activities of the *Western Pondoland General Council* are on a more restricted scale than those of the *Transkeian Territories General Council*, and they are sufficiently indicated in the subjoined statement showing the revenue and expenditure for a series of years.

PONDOLAND GENERAL COUNCIL—REVENUE AND EXPENDITURE, 1917–18 TO 1924–25.

Heading.	1917–18.	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	£	£	£	£	£	£	£	£
Revenue.....	10,081	10,513	10,067	10,011	9,963	9,835	11,631	11,347
Expenditure....	10,657	10,222	10,587	10,078	9,344	9,601	10,592	10,862

4. **Eastern Pondoland Trust Fund.**—In Eastern Pondoland, comprising the districts of Bizana, Flagstaff, Lusikisiki, and Tabankulu, the cost of construction and maintenance of cattle and sheep tanks, dipping of large stock, the cost of combating stock diseases generally, and grants towards scholastic education are met from revenue raised by special taxation each year. The amount of the tax is 7s. 6d. a year for each hut-tax payer, 2s. of which is education tax and 5s. 6d. tank and dipping tax. The Education Fund commenced from 1st July, 1917. Prior to the 1st July, 1918, the revenue and expenditure in connection with tank and dipping taxes were included in the accounts of the Native Affairs Department, but from the date mentioned the control of this Trust Fund was transferred to the Chief Magistrate. The table hereunder gives the revenue and expenditure of the Trust Fund from the 1st July, 1920 :—

EASTERN PONDOLAND TRUST FUND—REVENUE AND EXPENDITURE, 1920–21 TO 1924–25.

Heading.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	£	£	£	£	£
Revenue.....	15,262	12,752	11,902	14,223	13,690
Expenditure.....	13,700	12,869	14,060	12,313	12,862

5. **Orange Free State Native Reserves.**—There are in the Orange Free State three areas reserved for the exclusive occupation of natives. These areas are the Native Reserves of Witzieshoek, Thaba 'Nchu, and Seliba.

The Witzieshoek Reserve, in extent about 50,000 morgen, was assigned in 1867 for the occupation of Paulus Mopeli, a Mosuto Chief, who desired to become a subject of the Orange Free State. The present population of the Reserve is estimated at 5,500. The chief of the tribe, who is appointed by the Government, exercises a limited jurisdiction in civil cases but none in criminal cases, is exempt from tax, and is bound to give all the required assistance for the preservation of order and peace within the territory. The representative of the Government, who is responsible for the administration of the Reserve, is known as the *Commandant*, and is an officer of the Native Affairs Department. In civil cases there is an appeal from the decision of the Chief to the *Commandant*, and in criminal cases the *Commandant* has all the powers granted to courts of resident magistrates. The *Commandant* must reside within the Reserve, and is charged with the collection of the hut tax of £1 per annum levied on the owner of each hut. He keeps a register of all male persons in the Reserve, as well as of the number of huts and exercises a general oversight over the affairs of the Reserve.

In addition to these officials, there is a Board constituted under Ordinance No. 6 of 1907, consisting of seven members. Five of these are natives of the Reserve, and two—the chairman and vice-chairman—are Europeans. All the members are nominated by the Government. The powers and duties of the Board include the maintenance and repair of roads (other than main roads), the provision of water supply and sanitary services, the establishment and support of schools in consultation with the education authorities, and the levy on each coloured male person of an annual tax not exceeding £1 for these purposes. The Board is further empowered, subject to approval by the Government, to make such regulations as may be necessary for carrying out these functions, and for other purposes connected with the management of the Reserve. The revenue collected from 31st May, 1910, to 31st December, 1918, amounted to £5,931, representing principally the location tax of 10s. per annum, school fees payable by pupils residing outside the Reserve, fines imposed, Government grants in aid of native education, dipping fees, and fees for grazing rights. The expenditure during the same period was £5,638, of which the chief items were: Education £2,633, and Improvements (fences, roads, dipping tanks, etc.), £1,923.

Owing to financial difficulties the Board resolved to suspend the activities of the schools from July, 1921, but a certain number were re-opened in January, 1922.

6. **Mission Stations and Communal Reserves.**—Under Act No. 29 of 1909 (Cape), certain mission stations, in which land was held in trust by the missionary body for the native and coloured occupants, were brought under a system in which a definite grant of land was made to the missionary body for the purposes of its work and the remainder of the station was demarcated and reserved for the registered occupiers. For the control and regulation of the native or coloured community thus established a Board of Management is provided by the Act. The Board consists of six members elected by the registered occupiers and three appointed by the Governor-General and is presided over by the magistrate of the district. The Board is endowed with certain of the duties and functions of a Village Management Board, mainly the control of roads, fences, sanitation, water supply, and use of the commonage and it has power to make regulations in regard to those matters, subject to the approval of the Governor-General. The Board may levy a rate of not less than 10s. per year on each registered occupier for the purpose of defraying the cost of administration.

Seven mission stations have now been proclaimed under the Act: Shiloh, in the district of Queenstown; Mamre, in the district of Malmesbury; Goshen, in the district of Cathcart; Enon, in the district of Uitenhage; Zoar, in the district of Ladismith; Pniel, in the district of Paarl; and Genadendal in the district of Caledon. The system has also, as provided in Part II of the Act, been extended to the four communal reserves: Leliefontein, Concordia, Steinkopf, and Komaggas in Namaqualand.

7. **Local Councils under Act No. 23 of 1920.**—The *Native Affairs Act*, 1920, provides for the establishment of local councils in native areas which have been set aside or may hereafter be set aside as such by Parliament. The councils are in principle designed to have real local self-government, and, while independent of official or European control in their deliberations, they will have as chairmen Government officials with advisory duties, conversant with the necessities and obligations of local government. The Native Affairs Commission, which was empowered to recommend the constitution of such councils, proceeded from the standpoint that these bodies should be established wherever possible. A series of consultative meetings has been held with the natives at various centres, and the Commission has made certain recommendations which are receiving the consideration of the Government.

8. **Tribal Trust Funds (Transvaal).**—In the Transvaal what are known as *Tribal Trust Funds* have been established in various districts, under the control of the local officers of the Native Affairs Department. Originally these funds were instituted for the

purpose of extinguishing tribal debts and reorganizing the finances of the tribes concerned. Owing to the dilatoriness in meeting their obligations in respect of land purchases, etc., imprudence and mismanagement of tribal moneys, certain tribes had become yearly more and more involved until with the consent of chiefs and people their affairs were investigated and taken in hand by the officers of the Native Affairs Department. As a result of the assistance and protection afforded, the tribal finances were in the course of a few years placed upon a solvent and satisfactory basis.

These Trust Funds comprise the proceeds of self-imposed levies voluntarily subscribed by the natives. The levy usually takes the form of an annual rate payable by each taxpayer, the amount of which is fixed by the Chief and members of the tribe. It is collected at the office of the Native Commissioner or Sub-Commissioner, and paid into a special banking account under the control of a Board consisting of the Commissioner and the Chief and councillors of the tribe. Books of account in respect of receipts and expenditure are kept, are audited annually by a public accountant, and are available for inspection at all times by natives interested.

The system of maintaining *Tribal Trust Funds* derived from voluntary levies was initiated in the Pietersburg district, and has been attended with marked success. As a result, a number of such Funds has been established, and in some cases they are utilized as media not only for discharging tribal obligations, but for providing services of benefit and utility to the communities concerned, e.g. fencing, tree planting, the construction and maintenance of dipping tanks, the sinking of boreholes, erection of windmills, etc.

Section 15 of the *Natives Taxation and Development Act*, No. 41 of 1925, now provides definite legal sanction for the imposition of these levies, if desired by any native tribe or community, not only in the Transvaal but throughout the Union.

§ 5. Land Administration.

1. **The Natives Land Act.**—The *Natives Land Act*, No. 27 of 1913, took effect from the 19th June, 1913, and was avowedly a temporary measure with the object of maintaining the *status quo* as regards the ownership and occupation of land in the Union relatively by natives and by persons other than natives—so far as that could be done without imposing undue hardship "until Parliament should make other provision." Provision was made for the appointment in the interim of a Commission for the purpose of inquiring into and recommending to Parliament what areas in the Union should be set apart within which (*a*) natives and (*b*) persons other than natives should not be permitted to acquire or hire land or interests in land.

To fulfil its purpose, the Act laid down that, except with the approval of the Governor-General, a native might not acquire from a person other than a native, nor a person other than a native from a native, any land or interest in land in any area outside of the native areas described in the schedule to the Act; and that without such approval no person other than a native might acquire any land or interest therein in a scheduled native area.

The Commission appointed under the Act (chairman, Sir William Beaumont) reported in 1916. After an exhaustive investigation of the questions referred to it, the Commission made recommendations as to the areas which should be set aside for native occupation. Extracts from the report of the Commission, giving certain interesting data collected by the latter, will be found in the fourth and previous issues of this *Year Book*.

In 1917 the further legislation contemplated in the Act was introduced into Parliament in the shape of the *Native Affairs Administration Bill*. The Native areas recommended by the Beaumont Commission were embodied in a schedule to the Bill, which, after the second reading, was referred to the Select Committee on Native Affairs. A large body of evidence was taken by that Committee, which, however, in the time at its disposal, was only able to consider and submit recommendations for the amendment of Chapter II; and to suggest, in regard to the matter of areas, that the Government should during the recess consider the advisability of appointing local committees to inquire further as to the adequacy and suitability of the areas recommended by the Beaumont Commission. This suggestion was adopted by the Government; and local committees, consisting each of three members (increased to four in the case of the Cape), selected for their knowledge of the areas in question, were appointed for the Cape Province, Natal, Orange Free State, Eastern Transvaal, and Western Transvaal.

The reports of the local committees were furnished in 1918, and from their several recommendations it was clear to the Government that the committees, in arriving at their conclusions, had followed different principles and that consequently the enactment of segregation clauses would be premature until the bases of the several recommendations had been co-ordinated, provision had been ensured for consideration in the native interest of the detailed proposals and the native population had been given further opportunity for enlightenment and discussion. In this connection, it might be stated that the suspicion and unrest engendered in the native mind towards the *Native Affairs Administration Bill* seemed to have increased rather than decreased with the effluxion of time.

These considerations led the Government to the conclusion that the time was not yet ripe for passing definite clear-cut segregation legislation, but as a preliminary step in that direction the policy embodied in the *Native Affairs Act* of 1920 (see § 2, paragraph 2) was decided upon.

In view of its far-reaching importance, reference may be made to the decision of the Chief Justice and a full bench in the Appellate Division of the Supreme Court, in the combined appeal of *Thompson and Stilwell* versus *Kama*, when it was held that the restrictions imposed upon the acquisition of land or interests in land by sections *one* and *five* of the 1913 Act did not, upon the construction given by the Court to section *eight* (2), apply in the Cape Province.

Pending the enactment of further legislation on the native land question, the Government has not hesitated to supply by administrative action indispensable requirements which it was originally intended should be met by the legislation foreshadowed in the *Natives Land Act*. The present position is that the Government readily recommends for the approval of the Governor-General transactions whereby natives are to acquire by purchase or lease, land or an interest in land in areas recommended for native occupation by one or other of the Local Committees, and thus in so far as these areas are concerned relief is afforded from the restrictions imposed by section 1 of the *Natives Land Act*.

Privately owned land will not in future be expropriated within *Committee* areas with a view to making such land available for native occupation nor will free grants be made for tribal locations. Speaking broadly, and excepting perhaps certain readjustments and one or two special cases, it is considered that the time has come when it must be recognized that any additional land which a man or a community now needs must be paid for either by way of purchase or of lease. As regards crown land in the *Committee* areas, the Government does not authorize permanent alienation without parliamentary authority. It recognizes, however, that natives should be given liberal rights of user of such land and has decided, therefore, that no further European rights shall be established. If an exception in this connection is made for very cogent reasons, other land equally suitable for native needs will be made available. These remarks apply primarily to the Transvaal and Natal. In the Cape Province, in view of the judgment referred to above, the facilities for acquiring land and interest in land are, so far as natives are concerned, exactly the same as they were prior to the passing of the *Natives Land Act*. In the Orange Free State, the fact that natives are debarred by law from acquiring any interest in land presents another difficulty which is engaging attention, especially with a view to enabling natives of the Barolong tribe to purchase or lease land on that portion of the Thaba 'Nchu district which was recommended by the Local Committee as a *Native Area*.

2. **Individual Tenure.**—(i) *Cape of Good Hope.*—The *individual* system of land tenure as elaborated in the *Glen Grey Act*, No. 25 of 1894, and applied in the Transkeian districts of Butterworth, Nqamakwe, Tsomo, and Idutywa, as provided in Proclamation No. 227 of 1895 (Cape), was extended to the districts of Tembuland by Proclamation No. 320 of 1911, while a somewhat modified but essentially similar system was applied to the District of Xalanga by Proclamation No. 241 of 1911. The survey of Xalanga with a view to the grant of individual titles was completed in 1914. In this district 2,292 garden and 2,016 building lots were surveyed and arrangements made for the issue of titles. In the Umtata district 13,296 garden lots and about 8,100 building lots were surveyed, and title-deeds are in course of preparation. The survey of the Engcobo district is now proceeding.

In the course of the survey of the Butterworth district in or about the year 1900, the plan was in many cases followed of surveying the arable lands of the several houses of a kraal as a single lot, with the result that when the holder died the heir became entitled to the land of all the houses. So many cases of this nature were found to exist, in which the heirs of minor houses suffered hardship through being deprived of a titled claim to the land of their house, that it was found desirable to amend the law so as to permit of such consolidated lands being subdivided with a view to the several houses coming into the hands of their rightful owners again. This was the idea underlying Proclamation No. 300 of 1913, which, however, was framed so as to be of wider scope than to apply to such cases only. Any large lot may now be subdivided, with the approval of the Governor-General, provided (so as to prevent excessive subdivision and its consequent evils) that no arable sublot is less than three morgen, and no building sublot less than half a morgen in extent. Advantage has been taken of the Proclamation only to a limited extent (about twelve cases).

A feature of the later surveys has been the engrafting into the Glen Grey system of land tenure of a plan for the setting aside of residential areas. Specific provision was made for this in connection with the Xalanga survey, and in other surveyed districts the policy is being given effect to by administrative means. Existing homesteads as a rule are not interfered with, but no new residential sites are being authorized unless they fall within one or another of the residential areas. All new church or school sites are also required to be within these areas. The policy has both an economic and a social aspect—economic in that it was brought about by the increasing congestion of the locations and the necessity for conserving the common lands as much as possible; social, in that it marks a departure

from the older native custom of selecting kraal sites at considerable distances from one another and distributed in a more or less haphazard manner about the commonage. The natives themselves, as is to be expected of a people essentially conservative in character, are slow to appreciate the change, though the Tembus voluntarily broached the matter to the Government when the survey was under discussion.

Two new principles in regard to individual tenure in the Transkeian Territories were introduced by Proclamation No. 196 of 1920. Forfeiture of allotments takes the place of cancellation of title deeds, and the functions of the Registrar of Deeds in regard to the custody, transfer, and registration of titles, have been vested in the Chief Magistrate.

(ii) *Natal.*—During 1918 the first definite step was taken towards introducing individual tenure of land into the native areas in Natal. A beginning was made in the Mission Reserves, and the preliminary survey of the Ifafa Reserve is complete, while others are proceeding. The conditions under which residents will be attached to the surveyed holdings are not yet decided.

(iii) *General.*—Considerable misgivings have recently been felt as to the success of the various systems of individual tenure. The survey of the locations has been an expensive process, the natives are not able to appreciate the value of exact measurement, and the surveys have not in all instances been carried out in a way to meet the conservative habits of those for whom the allotments were intended. The Survey Commission, which reported in 1921, recommended that some simpler form of survey should be employed where native allotments were in question, and Mr. M. C. Vos was appointed to go into the question and submit a scheme with this object. His report (U.G. 42 of 1922) is a valuable synopsis of the history of individual tenure, and contains suggestions for a simpler system of defining the boundaries of native allotments and for the registration of native titles. These suggestions are under the consideration of the Government.

3. **Occupation of Land for Church, School, and Trading Purposes.**—The Department of Native Affairs controls the grant or occupation of sites in native areas for Church, school, or trading purposes through the fact that approval by the Governor-General or Parliament is required under the various enactments dealing with the alienation or occupation of land for these purposes. Care is taken both to ensure that adequate facilities exist for the needs of the natives and to prevent monopolies. The First Report of the Select Committee on Native Affairs for the year 1925 recommends, with regard to application by churches or religious bodies for sites or other privileges depending upon Government recognition, that as a general rule permission shall only be granted to churches long established and enjoying universal public recognition, and in all other cases, before any application is considered by the Native Affairs Department, a report shall be submitted by the Native Affairs Commission in regard to the applicant body, as to the demand for its existence, its stability, its capacity both financially and educationally, and its general fitness for religious work amongst natives.

4. **Prospecting in Native Areas.**—Applications for permits to prospect in native locations are not generally encouraged. Several locations in the Cape Province have been proclaimed as areas within which prospecting is not allowed. In the Transvaal—where permission to prospect in the Crown Locations can only be obtained with the approval of the Minister of Native Affairs—applications have until recently been almost consistently refused. In view, however, of the recent important platinum discoveries in the Province, the Government has felt that it would not be justified in maintaining an attitude which might have the effect of preventing the exploitation of assets of national importance; and so a limited number of prospecting permits have been issued. The policy of the Government in this connexion is, on the one hand, to prevent the influx of large numbers of irresponsible Europeans into native locations, and to avoid the creation of monopolies on the other. It has accordingly been laid down that two permits may be issued in respect of any given area of location land, conferring a three months' prospecting right, against payment in advance of a fee of £10 sterling, the question of the renewal of such permits being dependent upon whether, during the period of that availability, *bona fide* prospecting has been carried out to the satisfaction of the Department.

§ 6. Natal Native Trusts.

1. **The Natal Native Trust.**—*The Natal Native Trust* was constituted under Letters Patent dated 27th April, 1864. In this body are vested approximately 2,262,066 acres of location land, and 144,192 acres of mission reserve lands, which are administered by the Trust for the benefit of the natives living thereon. No rent is payable by natives living on location land, who are liable only for the usual hut tax of 14s. per hut per annum; but mission reserve natives, in addition to the hut tax referred to, pay a rental of £1 per

annum, of which half is remitted to the missionary bodies for educational purposes, the remaining half being held in trust for the natives. Act No. 49 of 1903 which transferred the trusteeship to the *Natal Native Trust* deals with the control of these reserves.

Prior to the constitution of the Union the members of the Executive Council for the time being were *ex officio* members of the *Natal Native Trust*, but Act No. 1 of 1912 makes provision for the delegation by the Governor-General to the Minister of Native Affairs of the administration of all such matters as were on the 31st May, 1910, and since that date administered by any legally constituted *Native Trusts*. Both locations and mission reserves are held under deeds of grant from Government, the latter being tracts of land in various parts of the Colony, set apart in order that the missionary bodies referred to in the deeds of grant may have a fixed population among which to carry on their labours. These grants were made between 1862 and 1887.

Up to 1890 no rents were collected in the mission reserves except for a few store sites. The rule requiring payment of rent from new tenants as a condition of allowing them to come on the reserves was passed in 1888, but no rents were collected before 1890. The rent varied from time to time and in different reserves, but was fixed in 1919 at a uniform rate of £1 per annum payable by the occupier of each hut.

With a view to introducing some form of individual land tenure on the mission reserves in this Province, approval was given to a preliminary survey and investigation of the Ifafa and Amanzimtoti Reserves. The Ifafa Reserve is 6,209 acres in extent and Amanzimtoti 8,077 acres.

The system is being introduced on the following lines :—

(*a*) For monogamous residents lots will be surveyed to the extent of 13 acres ; (*b*) the title of occupation will be issued in respect of each lot ; (*c*) a minimum rental of £1 per annum per lot will be charged in lieu of the present hut rental ; (*d*) the cost of the survey will be borne from the Mission Reserve Funds ; and (*e*) steps will be taken as soon as legally possible to constitute Advisory Boards.

Amongst other activities of the *Natal Native Trust* may be mentioned the Mooi River and Tugela River Irrigation Works and the Zwartkop afforestation scheme.

2. **Putili and Other Trusts.**—(i) *Putili Trust.*—This was originally a separate Trust constituted under indenture dated the 18th September, 1878, but on the 28th February, 1908, the Governor of Natal appointed the Natal Native Trust to be sole trustees of the Putili Fund. The Trust is now administered in the same manner as the other locations in the Province.

(ii) *Umnini Trust.*—The Umnini Trust was created by indenture in 1858, and consists of three trustees, the Chief Native Commissioner and his successors in office, the chief of the Amatuli Tribe, and a third member. The only revenue which the Trust derives is in respect of Lots 47, 48 and 49, Umnini Location, which are let at a rental of £10 per annum. In order, therefore, to carry on the work connected with the two dipping tanks in the location a voluntary levy on the natives was agreed to in 1914.

(iii) *Zululand Native Trust.*—This trust is constituted under deed of grant, dated the 6th April, 1909, and is administered in the same way as the Natal Native Trust. The agreements which were in existence with regard to store sites in Zululand at the date of Union have been replaced by 99 year leases. The area in each case is a hundred acres where occupation was prior to annexation, and twenty acres if taken up afterwards. The rental is £5 per annum.

(iv) *Impapala Lots.*—Certificates in respect of these lots were issued in October, 1912, authorizing occupation on payment of a rental of 2s. per annum per acre and 10s per annum towards the estimated cost of survey, until the total cost of survey had been paid in full. Seven out of eighty-five lots still remain vacant. The extent of the plots vary from nine to thirty-five acres with a total area of 2,638 acres. There are thirteen commonages evenly distributed over the whole settlement varying in extent from eleven to 150 acres, with a total of 694 acres, leaving for actual occupation 1,944 acres, on which are resident the Christian natives or their descendants who migrated there in 1886, mostly from the Natal American mission stations.

§ 7. Education and Religious Influences.

1. **Education.**—(i) *General.*—Strictly speaking, the ordinary distinctions drawn between various grades of education do not obtain in the case of native education, which cannot in any sense be called *higher education*. But having regard to the average degree of education amongst the natives, it may be laid down that education up to and including Standard IV is *primary*, from the native point of view ; everything above that may be classified, for present purposes, as *higher education*.

All state and state-aided native education in the Union, with the exception of that represented by the South African Native College, is controlled by the Provincial Administrations in terms of § 85 of the *South Africa Act*. Native education, other than state and state-aided education, is under the control of missionary societies. In consequence of this arrangement, the supervision of the education of the natives has been made distinct from the administration of all other native matters—a circumstance which has inevitably resulted in the almost complete divorce of native education from the general native policy of the Union Government. The Native Affairs Commission, in its annual report for 1921, strongly recommended that native education should be controlled and administered by the Union Government in view of existing Provincial anomalies and the inadequate financial provision made under the present system. It may be noted, as a fact which has some bearing on the point, that there has appeared a growing inclination amongst a certain section of the native population, particularly in the Transkeian Territories, to secularize native education and to obtain a larger direct share in its management. Statistics of native education will be found in Chapter IV, which also contains particulars of the organization of native education in the various Provinces, forming as it does an integral portion of the general educational systems in force in these Provinces. The details given in the following paragraphs are an extension of these observations, and show more particularly what is being done by the several Provinces in providing for the education of the natives.

A conference on native education, attended by representatives of the Native Affairs Department, the Native Affairs Commission, and the Provincial Education Departments, was held in March, 1923. As a result, uniform scales of pay for native teachers were laid down.

Section 3 of Act No. 46 of 1925 provides for grants of fixed amounts in respect of the financial year 1925–26 direct to the various Provinces for the purposes of native education as follows :—

Cape Province, £240,000 ; Natal, £49,000 ; Transvaal, £46,000 ; Orange Free State, £5,000. From the year 1926–27 onwards, a fixed annual contribution of £340,000 will be made from the public revenues, not direct to the Provinces, but to an account to be established, styled the Native Development Account. From this account grants will be made to the Provinces for the maintenance, extension, and improvement of educational facilities among natives, and for the adjustment of the salaries of native teachers, subject to such conditions as may be fixed by the Governor-General after consultation between the Minister of Native Affairs and the Administrator concerned.

Funds for the further expansion of native education are, however, to be derived from the proceeds of direct taxation upon the natives themselves in terms of section 13 of Act No. 41 of 1925.

(ii) *Cape of Good Hope.*—The activities of the Transkeian Territories and Pondoland General Councils and the Eastern Pondoland Trust Fund in connection with education are dealt with in § 4 of this chapter.

In Eastern Pondoland an education fund was created in 1916 under which the Pondos agreed to an annual tax of not less than 2s. per head being imposed on them, the proceeds to be devoted to their educational needs. Estimates of expenditure for the year 1921–22 were approved at £2,720, and the revenue for the same period was estimated at £3,100. In June, 1919, the Administrator of the Cape appointed a Commission to investigate the whole question of native education in the Province. Its report, a most valuable one, was issued in 1920 (C.P. 4-'20). Some of the Commission's recommendations have already been carried out, notably the appointment of a Chief Inspector of Native Education and the preparation of a draft curriculum especially designed for native schools.

(iii) *Natal.*—In Natal the personnel of the Inspectorate Branch of the Education Department was reorganized so as to make specific provision for native education. There is also the *Native Education Advisory Board*, consisting of representatives of all missionary denominations, the Chief Inspector of Native Education, and the Chief Native Commissioner. As a further step in the direction of native education the Government in 1918 established an institution where the sons of chiefs and indunas in Natal may be educated so as to fit themselves for the various duties they are called upon to perform.

A grant of £150 per annum was made to the St. Hilda's Native Girls' College, Klip River District, towards the salary of an instructor in spinning and weaving, with a view to the encouragement of this industry amongst native women. Grants are also made from the Natal Mission Reserve funds to the Adams Mission Station at Amanzimtoti, with the object of encouraging native industrial education, and more particularly agriculture.

(iv) *Transvaal.*—In the Transvaal, in order to assist native schools not under European supervision to earn the grants made from the Provincial Administration funds, by arrangement with the Education Department, the Native Sub-Commissioners act as correspondents to such schools, when approached, and generally assist in the work of supervision on behalf of the education authorities.

An *Advisory Board on Native Education* in the Transvaal was constituted in November, 1924, with representatives of various religious denominations, the Native Affairs Department, and the Provincial Education Department.

2. **Higher Education.**—(i) *General.*—There are numerous institutions in the Union which endeavour to provide for the needs of the native peoples in regard to higher education, i.e. education beyond Standard IV, including industrial, agricultural, and commercial education, preparation for religious ministry, and the teaching profession. The leading institutions are :—

Cape of Good Hope.
Lovedale.
Blythswood.
Healdtown.
Bensonvale.
St. Matthew's (Keiskamahoek).
Shawbury (Qumbu).
St. John's College (Umtata).
Buntingville (Umtata).
Lesseyton (Queenstown).
Peddie.
Zonnebloem College.
Tiger Kloof (Vryburg).
Emfundisweni.
Clarkebury.

Natal.
Adams Training Institution.
Edendale.
Amanzimtoti.
Marianhill.
Ohlange.
Moddersprui t.
Indaleni.

Transvaal.
Kilnerton (Pretoria).
Diocesan College (Pietersburg).
Botsabelo (Middelburg).

Orange Free State.
Thaba 'Nchu.
Stofberg Gedenk.

(ii) *The South African Native College.*—The principal event, however, since the constitution of the Union in this connection has been the establishment of the South African Native College. As early as the year 1880 it was recognized that, if the desire for education on the part of natives of South Africa continued to grow, it would sooner or later be necessary to provide an institution capable of giving an education, under Christian auspices, up to a University standard. If this were not done they would seek education in America and other countries. In 1905 the *South African Native Affairs Commission* recommended " that a Central Native College or similar institution be established and aided by the various States for training native teachers, and in order to afford opportunities for higher education to native students." After the death of Dr. Stewart, of Lovedale, in 1905, a convention of natives from all the States of South Africa was held at Lovedale to consider the steps that should be taken to give effect to the recommendation of the *Inter-Colonial Native Affairs Commission*, and as a result a petition was presented to the High Commissioner, and the various Governments of South Africa, praying that an Inter-State Native College should be established. The interest of the natives in the scheme was manifested by the grant of £10,000 by the *Transkeian Territories General Council* in 1907 towards this object, and the United Free Church of Scotland offered a site at Fort Hare, in the Victoria East District, as part of a contribution of £5,000. Other contributions were made or promised. In 1908 a Select Committee on Native Education appointed by the Parliament of the Cape Colony reported in favour of support being given to the Inter-State College, but the materialization of the College scheme was delayed.

In November, 1914, an important step forward was taken when the Constitution of the College, which had been submitted in draft to the contributors and various bodies interested, was finally adopted. The Governing Council of the College, established under the Constitution, held its first meeting in January, 1915, and took over the funds hitherto administered by the Executive Board. The Council decided that the site offered by the United Free Church of Scotland was suitable for the purposes of the College, which, in view of the incorporation in the Union of the various States interested in its foundation, was called *The South African Native College.* The Government of the Union further pledged its support by promising an annual grant, and appointed its representatives to the Governing Council, a step that was also taken by the University of the Cape of Good Hope (later University of South Africa), and by the various contributing bodies.

The College is designed ultimately to provide a liberal education of University standard, and also training for those who wish to qualify themselves to enter upon one of the learned professions or to follow the higher branches of agriculture, commerce, industries, or domestic arts.*

3. **Orange Free State Imperial Grant.**—Out of a grant of £2,000,000 made by the Imperial Government as war compensation for natives in the Orange Free State, a sum of £39,000 remains unexpended, and the natives urged on the Government that this money should be used for educational extension, more particularly higher education. The Minister of Native Affairs decided that the wishes of the natives should be met, and the Government has under consideration the measures necessary for carrying these proposals into effect.

* In October, 1923, the College was declared to be " a place of higher education " under Act No, 30 of 1923, and its scheme of government was prescribed. As a result of this development, the College became eligible for the receipt of grants in aid of higher education under the Act.

Grants are now made from the interest on this fund to approved institutions in respect of natives from the Orange Free State receiving education in standards above Standard IV or industrial training. The grant, originally £15 per annum for each such student, has, in consequence of the exhaustion of the accrued interest on the fund, been reduced to £12, and the number of grants have been strictly limited in order to preserve the capital amount intact. It has also been decided, in view of the primary interest of the Orange Free State in the fund, that institutions in that Province shall have a first claim in respect of the grants. A Committee, under the chairmanship of the Principal of the South African College, which enquired into the means of using the capital of the fund for the furtherance of higher education, prefaced its report by the statement that " the present condition of native elementary education in the Province of the Orange Free State makes the success of any scheme of higher education doubtful, if not impossible." In view of this opinion, no action has been taken to carry out the scheme suggested by the Committee, which would, moreover, involve an expenditure largely in excess of the funds available.

4. **Native Separatist Churches.**—There are about one hundred and thirty-two separatist churches, and the tendency is for the number to increase rapidly. One of the difficulties in dealing with these bodies is the question of the appointment of their ministers as marriage officers, a matter which received consideration from a Select Committee of the Senate in 1913. The recommendations of that Committee were as follows :—

> In the Transvaal and Orange Free State Provinces, only European ministers are recognized as marriage officers to celebrate marriages by Christian rites, although there is nothing in law to prohibit the appointment of natives as marriage officers. In the Cape Province ordination as a minister of the Christian religion in accordance with the *Marriage Order in Council* of 1838, automatically entitles a native to celebrate such marriages ; while in Natal, where all marriage officers must be licensed, it has not been the practice to refuse licences to duly ordained native ministers of recognized churches. Your Committee considers that a native who has been ordained a minister of an established European church should, while remaining associated with such church, be deemed by the State worthy to be entrusted with the duty of celebrating as a marriage officer a marriage by Christian rites, and is of opinion that duly ordained native ministers of such churches should be recognized as marriage officers throughout the Union.
>
> In the case of native ministers belonging to purely native churches which have not by length of existence, or by the magnitude and stability of their work or by other means shown themselves to be entitled to recognition, your Committee does not consider it desirable to place them on the same footing. But, in its view, ministers of purely native churches should be appointed marriage officers during the pleasure of the Governor-General, if they are able to prove to the satisfaction of the Government that they are of good character, are educationally fit, and possess a sufficient knowledge of the marriage laws for the office ; and further, that their appointments are reasonably necessary to meet the needs of substantial congregations coming under their ministrations.

This policy is now pursued ; the Department of Native Affairs is satisfying itself in regard to the character, antecedents, and standing of the applicant and the church which he represents, and as to the reasonable requirements of the congregation coming under the applicant's ministration. Over 100 native ministers of separatist churches hold appointments as marriage officers.

The most fruitful cause leading to the increased establishment of such churches is to be found in jealousies and differences frequently leading to open quarrels amongst natives over the question of supremacy in the church. Repeated schisms occur, each side claiming to have expelled the other from the church for insubordination, and both coming separately to the Government with a request for State recognition of their church. In 1921 a Commission was appointed to inquire into the origin and activities of these bodies. The inquiry of the Commission has been completed and its report published. (U.G. 39—'25.)

§ 8. Stock Dipping Operations.

1. **Development of System of Stock Dipping.**—Responsibility for the inauguration of regular and systematic dipping of stock in native areas was assumed by the Native Affairs Department by arrangement with the Department of Agriculture.

On the 31st December, 1921, there were under the supervision of the Department in the Cape Province proper 74 tanks, in the Transkeian Territories 446, in Natal 422, and in the Transvaal 292. All these tanks have been constructed and are being maintained at the expense of the natives. In the Transkeian Territories this expenditure is met in a variety of ways : in seventeen districts by a stock rate, and in one district by a charge of ½d. per head dipped. In Western Pondoland dipping is paid for out of the annual general rate of 10s. per adult male ; in Eastern Pondoland by a special rate of 6s. 6d. on each hut-tax payer. In the only native location in the Mount Currie district a poll rate of 5s. is levied. In Natal a general dipping levy of 6s. per adult male is charged. In the Cape Province and in the Transvaal the cost of construction and maintenance is being met by special rates under the *Dipping Tanks Advances Act* or by voluntary levies or levies under *Government Notice* No. 1348 of 1924.

In the Transkeian Territories, except in the district of Idutywa, where dipping operations are in charge of a committee consisting of natives, control is exercised by the Magistrate and the District Council, where such exists, under the directions of the Chief Magistrate. The 446 tanks in the Territories are served by a staff of 56 European supervisors, 15 native assistant supervisors, and 203 native foremen.

In the Glen Grey district the District Council exercises control and in Natal the Department has special dipping supervisors. In the other areas the local officers of the Department are in general control, assisted where necessary by specially-appointed supervisors.

The number of native-owned cattle in the Transkeian Territories (excluding the districts of Mount Currie and Idutywa) increased during 1920 by 72,018. The number of head on the 1st January, 1918, was 490,179; 1919, 572,369; 1920, 661,349; 1921, 733,367. In Natal the cattle in native areas have increased during the last three years from 350,000 to 520,000, and the value of the stock, both large and small, is said to be not less than £6,000,000.

2. **Expenditure on Dipping Tanks.**—The following figures represent as at 31st March, 1925, the capital cost, the expenditure, and the receipts in respect of dipping tanks in native areas completed under the provisions of the *Dipping Tanks Advances Act* of 1911 :—

DIPPING TANK EXPENDITURE AND RECOVERIES TO 31st MARCH, 1925.

Area.	Expenditure.			Receipts.			Balances.		
	Capital Cost.	Interest.	Maintenance of Tanks and Dipping Operations.	Capital.	Interest.	Maintenance.	Capital.	Interest.	Maintenance.
	£	£	£	£	£	£	£	£	£
Cape Province..	39,746	1,896	66,600	39,746	1,896	60,006	—	—	6,594
Natal & Zululand	96,730	14,347	337,100	96,273	14,285	286,354	457	62	50,746
Transvaal.....	8,066	638	12,294	7,912	638	12,178	154	—	116
TOTAL.....£	144,542	16,881	415,994	143,931	16,819	358,538	611	62	57,456

§ 9. Control of Natives.

1. **Natives in Urban Areas.**—Before the establishment of the Union the control and administration of matters affecting natives in urban areas were vested in the local authorities having jurisdiction. These functions were exercised through regulations framed under statutory powers and subject before promulgation to the approval of the central governments of the various colonies. There were thus two ways in which the law regarding such natives might differ between colony and colony. In the first place the powers granted by statute to the local authorities varied to a very great extent, and in the second place the policy of one central government was to restrict the action of local authorities, while that of another was to allow every latitude in the control of the native population.

The *South Africa Act* (Section 85) granted to the Provincial Councils power to make Ordinances in relation to all matters affecting local authorities and all matters which in the opinion of the Governor-General-in-Council were of a merely local or private nature. Section 147 of that Act, however, vested in the Governor-General-in-Council the control and administration of native affairs throughout the Union. The question which arose immediately after the constitution of the Union was whether in the exercise of their powers in regard to natives the local authorities were to be subject to the Provincial or to the Union Government, in other words, whether regulations differentially affecting natives framed by the local authorities required merely the approval of the Executive Committee or whether they required in addition the approval of the Governor-General-in-Council. It was decided that the powers in question should be reserved to the Union Government in view of Section 147 of the *South Africa Act*. The Native Affairs Department has therefore since 1910 been concerned in this connection with (1) the oversight of all regulations submitted for approval and (2) the preparation of legislation affecting natives.

The conditions prevailing in the urban native locations in all the Provinces of the Union have been far from satisfactory. This may be attributed to several factors, of which two at least, though fairly well defined, can only be combated by the slow processes of education and experience—namely, the attitude of local authorities towards the native and the passive indifference or occasionally active hostility of the natives themselves. A third factor, largely conditioned by the others, but easier to deal with, because more concrete, is the admitted inadequacy of the existing native legislation. Local authorities derive their powers of regulation in native matters from the laws governing their activities which were in many cases enacted before the constitution of the Union, and which were characterized by a wide divergence of policy between the various legislatures.

The pre-existing statutory provisions in force in the various Provinces in regard to the control of natives in urban areas have now been superseded by the *Native (Urban Areas) Act*, No. 21 of 1923, which came into operation on the 1st January, 1924. It is a comprehensive enactment providing, in terms of the title—

> for improved conditions of residence for natives in or near urban areas and the better administration of native affairs in such areas; for the registration and better control of contracts of service with natives in certain areas and the regulation of the ingress of natives into and their residence in such areas; for the exemption of coloured persons from the operation of pass laws; for the restriction and regulation of the possession and use of kaffir beer and other intoxicating liquor by natives in certain areas and for other incidental purposes.

Generally it defines and describes the powers and the duties of urban local authorities in respect of the native population within their areas, requiring them to set aside land for the accommodation of the natives who are legitimately within their boundaries. It provides in cases where it may be expedient, for the compulsory residence of natives, with certain exceptions, in locations, native villages or hostels, and gives to the local authority powers of expropriating land and borrowing money to meet the responsibility thrown upon it. It lays down certain principles to be followed in the administration of native affairs, such as the establishment of a native revenue account and of native advisory boards, and makes provision for government inspection. In view of the responsibility thrown on local authorities the Governor-General is authorized to confer or exercise by proclamation certain powers of control, whereby the native population may be limited to the number legitimately required for the needs of the community. These powers may also be exercised in industrial areas other than those under the jurisdiction of an urban local authority. The Act prohibits the introduction of intoxicating liquor into locations, native villages, or hostels, but allows, subject to varying circumstances, the private brewing of kaffir beer or its manufacture and sale by the local authority. It further limits the right of trading in a native village or location to native enterprise or if that should not be adequate, authorizes municipal trading in these areas.

Model location regulations framed by the Native Affairs Department for the guidance of urban local authorities were published in Government Notice No. 672 dated 22nd April, 1924. Regulations, based on the model series, have been promulgated under Section 23 of the new Act in respect of numerous urban areas, and make due provision for the control of locations and the establishment of Native Advisory Boards. The system of registration and control provided for in Section 12 of the Act has been applied to the principal urban, mining, and industrial areas in the Transvaal, and is administered by the Government in continuance of the pre-existing practice in that Province. The system has been extended to Bloemfontein and a few other urban areas in the Orange Free State, where, however, the regulations are administered by the local authorities. The provisions of Section 21 of the Act, under which an urban local authority may be granted exclusive rights of manufacture, sale, and supply of kaffir beer have not as yet been adopted by any urban local authority outside of Natal. Funds have been provided by the Government, out of which, through the medium of the Provincial Administrations, loans may be obtained by urban local authorities for housing purposes, and it is satisfactory to note that several of these bodies have made application for such loans with a view to improving the housing accommodation of natives in the locations under their control.

2. **Pass Laws.**—Pass Laws based on various statutes are in operation throughout the Union, with the exception of the Cape Province (excluding the Transkei), where the natives (unless accompanied by live stock) enjoy entire freedom of movement. The question of the pass laws was referred to the Select Committee on Native Affairs appointed by the House of Assembly in 1914. This Committee reported that it considered it inadvisable to attempt at that stage to legislate with a view to the consolidation of the pass laws in force in the different Provinces, but that such legislation should await the action to be taken by Parliament on the report of the Natives Land Commission then sitting. At the same time the Committee recognized that there were certain defects in, and grievances under, the pass laws, which might be remedied as a temporary measure pending consolidating legislation, and it accordingly recommended for the consideration of the House a draft Bill, the text of which will be found in the Committee's report [S.C. 84—'14]. During the war

period it was not found possible to introduce this amending Bill, but administrative action was taken to relieve the situation in certain directions.

A Departmental Committee of Inquiry was appointed in December, 1919, which fully investigated the pass question in all four Provinces, and presented a report to the Government. The report was published in 1923 (U.G. 41 of 1922). After consideration of the subject by the Native Affairs Commission, a Bill, embodying in the main the recommendations of the Committee and entitled *The Native Registration and Protection Bill*, was introduced into Parliament during the 1923 Session as a complementary measure to the *Urban Areas Bill* (see paragraph 1 above). Considerable opposition being shown to certain of its provisions, it was withdrawn for further consultation with the natives. Certain sections were, however, transferred to the *Urban Areas Act* as being essential to the successful administration of that measure.

3. **Exemption Laws.**—There are three *Exemption Laws* operating in the Union, namely: Proclamation No. 35 of 1901 (Transvaal), Ordinance No. 2 of 1903 (Orange Free State) and Law No. 28 of 1865 (Natal). The two former measures exempt well-educated adult male natives pursuing various defined occupations from the operation of the pass laws, and in the Transvaal also from payment of native taxes and from the provisions of certain other laws specially applying to natives. The Natal statute exempts both male and female natives of advanced civilization from native law as in force in the Natal Province.

The question of the consolidation of these laws or alternatively of arranging for *Letters of Exemption* issued in any one of the Provinces to operate in the remaining Provinces has been considered by the Department of Native Affairs. Owing, however, to the entirely different character of the Natal law and the wider exemption provided under the Transvaal law as compared with the law in the Orange Free State, it has not been found practicable to give effect to the alternative without legislation. The subject came within the cognizance of the Departmental Committee on the Native Pass Laws whose recommendations, set out in the report mentioned above, were embodied in the *Native Registration and Protection Bill* of 1923 (see paragraph 2 above). In the meantime the existing exemption enactments are administered in the most liberal manner possible.

In terms of the *Native Taxation and Development Act*, No. 41 of 1925, the immunity from the payment of native taxes hitherto enjoyed by the holders of Letters of Exemption in the Transvaal disappears.

§ 10. Taxation.

1. **Sources of Revenue.**—The following is a summary of the principal sources of native revenue in the various Provinces (as distinct from rents, rates and fees, etc., paid by natives to properly constituted bodies and trusts). (See paragraph 2 following.)

(i) *Cape Province* (apart from Transkeian Territories)—

(*a*) *Hut Tax.*—(1) On Crown Lands a tax of 10s. per hut is imposed by section 11 of Act No. 37 of 1884. Hut tax is levied in all Crown Locations (except where quitrent is claimable as in the case of the surveyed locations under Act No. 40 of 1879), including the Bechuanaland Reserves. (2) On private property the hut tax has been replaced by private location fees imposed under section 6 of Act No. 32 of 1909.

(*b*) *Quitrent.*—Quitrents are imposed either in surveyed locations under the *Glen Grey Act*, No. 25 of 1894, or in locations surveyed under Act No. 40 of 1879.

(ii) *Transkeian Territories.*—A hut tax of 10s. per annum is levied under section 2 of Proclamation No. 320 of 1904 on every holder of an arable allotment in crown land locations which have not been surveyed. On surveyed Crown land locations a quitrent is substituted for the hut tax. Private location fees are imposed in lieu of the hut tax in respect of natives residing on private property in the Matatiele and Mount Currie districts.

(iii) *Natal.*—A hut tax of 14s. per hut is imposed on all natives resident in the Province with the exception of those living in houses of European construction and having only one wife, and generally conforming to civilized usages. In addition a rent of £2 is levied in respect of every native hut on Crown lands as distinct from locations.

(iv) *Transvaal.*—A tax of £2 is levied on every adult male native under section 3 of Act No. 9 of 1908 with a remission of £1 in respect of municipal location residents and *bona fide* farm labourers. In addition, a native squatting on Crown lands as distinct from locations has to pay a rent of £1. 10s. per annum, plus a grazing fee for stock in excess of a limited number.

(v) *Orange Free State.*—Under Ordinance No. 2 of 1904 a poll tax of £1 per annum is levied on all male coloured persons who have personally resided in the Province for a period of at least six successive months during the year in respect of which the tax is payable.

2. **Consolidating Legislation.**—The question of consolidating the various taxation laws has been continually under consideration since the constitution of the Union, and in 1911 a draft consolidating measure was prepared by the Inland Revenue Department. Action has, however, been postponed. In the meantime, with a view to bringing the collection of tax in Natal into line with the practice obtaining in other parts of the Union, and also meeting the wishes of the natives themselves, fresh regulations, under section 3 of Law No. 13 of 1875 (Natal), were promulgated in 1917, transferring the onus of payment from the kraal head to the hut owner.

In accordance with a recommendation of the Native Affairs Commission, Act No. 5 of 1922 provided that a Provincial Council shall not have the power to make an Ordinance imposing direct taxation upon the persons, lands, habitations, or incomes of natives. The Act further provided that grants for the extension and improvement of educational facilities amongst natives and for the adjustment of salaries of native teachers should be made out of revenues derived from the direct taxation of natives by the Union Government. The necessity of providing funds from which these grants may be made has brought the whole question of the consolidation and amendment of the various taxation measures under urgent review, and a Bill has been prepared for submission to Parliament. The principles of the Bill were discussed with representatives of the native people at the Native Affairs Conference held in September, 1924.

This Bill became law in the 1925 Session of Parliament in the shape of "*The Natives Taxation and Development Act*, No. 41 of 1925." Its object is "to consolidate and amend the law relating to the taxation of natives and to provide additional funds for the development, education, and local government of natives." The Act came into operation on the 1st January, 1926, and superseded existing pre-Union systems of taxation. Every adult male native in the Union pays a general tax of £1, and every native occupier of a hut or huts in a native location as defined in the Act pays a local tax of 10s. per hut. Natives paying quitrent are exempt from the payment of local tax.

The local tax and quitrent will be allocated to native councils enjoying a certain measure of local self-government for expenditure in the areas falling under their jurisdiction. Any local tax or quitrent collected in respect of any area not falling under the jurisdiction of a native council will be paid into a "Native Development Account" together with one-fifth of the general tax. The objects of this account will be, *inter alia*, to maintain, extend, and improve the educational facilities amongst natives and generally to develop and advance the welfare of natives.

Provision is also made in the Act whereby a native tribe may voluntarily subject itself to the levy of a special rate for purely tribal purposes.

Particulars of native revenue collected are given in Chapter XXII.

§ 11. Native Labour.

1. **The Native Labour Regulation Act.**—The Union Act No. 15 of 1911 consolidated the laws in regard to the recruiting and employment of native labour previously in force in the various Provinces. This law follows generally the line of the previous Transvaal regulations, which, however, were considerably amplified and expanded with the addition of provision for the payment of compensation in the case of accident. The executive duties under the Act are carried out, as under the Transvaal regulation, by an officer styled the *Director of Native Labour*, with headquarters in Johannesburg; they include the issue of licences to employers and agents to recruit natives, and to compound managers, and the assessment of compensation. The Director has power to cancel contracts, to repatriate sick natives, and to exercise control and protection over native labourers, more particularly in *Labour Districts*.

Labour Districts can be proclaimed by the Governor-General where large numbers of natives are employed either in mining, industrial, or other work. In such areas stricter pass regulations are applied, and, where more than fifty natives are employed, compound managers are appointed to supervise and control them, investigate their complaints, and attend to their lawful requirements. Government inspectors are also appointed to inquire into native grievances and settle disputes, and special regulations are in operation in regard to housing, feeding, and the provision of hospital accommodation. Fourteen such *Labour Districts* in the Transvaal, which were established prior to Act No. 15 of 1911—namely, Randfontein, Krugersdorp, Roodepoort, Johannesburg, Germiston, Boksburg, Benoni, Springs, Witbank, Rayton, Klerksdorp (deproclaimed in 1920), Heidelberg, Vereeniging, and Rooiberg (deproclaimed in 1923)—were reproclaimed under the new Act by Proclamation No. 300 of 1911. In addition new *Labour Districts* have been constituted at Christiana, Barkly West, Kaalplaats in the district of Potchefstroom, Lichtenburg, and Hopetown, to embrace the alluvial diggings in these areas, and at Breyten in respect of the Ermelo coal area. *Labour Districts* were also established in the Orange Free State, namely, Heilbron,

Vierfontein (deproclaimed in 1920), Fauresmith, Boshof, and Voorspoed, to embrace the various coal and diamond mines in that Province, while the coalfields of Natal are included in the labour districts of Vryheid and Dundee.

Under section 19 of the Act, inspectors were appointed on the Witwatersrand to perform judicial functions, to act as protectors of natives, to visit the compounds, inspect conditions under which natives are accommodated, inquire into complaints of natives, and put forward their claims for compensation for injuries sustained or for disability due to phthisis or tuberculosis. In addition, inspectors were appointed in other areas of the Transvaal and for Kimberley, Barkly West, and the Orange Free State. Two inspectors are also stationed on the Natal coalfields, and another supervises labour conditions on the sugar estates, etc., along the coast of Natal and Zululand.

The following table gives the number of recruiting licences issued under the Act for a period of years.

ISSUE OF RECRUITING LICENCES, 1913 TO 1924.

Year.	Cape.	Natal.	Transvaal.	Orange Free State.	Total.
1913.....	1,495	311	237	5	2,048
1914.....	923	153	176	5	1,257
1915.....	542	83	125	4	754
1916.....	498	73	91	3	665
1917.....	446	80	79	3	608
1918.....	550	86	85	2	723
1919.....	551	101	78	1	731
1920.....	527	88	67	1	683
1921.....	502	64	53	1	620
1922.....	442	62	66	1	571
1923.....	448	69	81	5	603
1924.....	485	60	61	5	611

The fees payable annually for licences are as follows :—

		£
(*a*)	For a district labour agent's licence.....	6
*(*b*)	„ Provincial labour agent's licence.....	25
*(*c*)	„ Union labour agent's licence.....	50
(*d*)	„ compound manager's licence.....	1
(*e*)	„ conductor's licence.....	1
(*f*)	„ employer's recruiting licence.....	1

If, however, the licence be issued after the 1st July, in any year, only half the fee is payable in each case. In order to recruit in more than one district, a labour agent must obtain the endorsement of his licence by the Director in respect of each additional district. For each such endorsement a fee of £1 is payable.

Soon after the coming into operation of the Act it was found necessary to secure as far as possible a more equal division between conflicting industrial, mining, and agricultural interests in the different parts of the Union, and to safeguard any district not possessing a large native population against being denuded of its labour supply through the activities of labour agents acting on behalf of employers at other centres. With this end in view special regulations were issued embodying conditions on the issue of employers' and labour agents' licences. The object of these regulations was as far as possible to secure that only in cases where there was a large surplus native population in a district should recruiting be allowed. At the same time no obstacle was placed in the way of natives voluntarily proceeding to districts which in their opinion offered the most attractive spheres of labour.

On the whole these regulations have operated fairly and, although the tendency is for native labour still to flow in an increasing degree towards the Witwatersrand and the mining industries, this is chiefly due to the higher wage obtainable there and the superior feeding and housing conditions prevailing. The Native Labour Department is, however, endeavouring as far as possible to assist the farming industry by encouraging natives rejected for mine work to engage for farm labour, and by allowing labour agents to recruit for farmers under special conditions.

2. **Transvaal-Mozambique Convention.**—The entry into the Union of native labourers from Portuguese territories is governed by Part I of the Transvaal-Mozambique Convention,

* No Provincial or Union labour agents' licences have as yet been issued.

which remained in force after the expiration of the rest of the Convention on the 31st March, 1923. The text of the agreement on this point will be found in the sixth issue of this *Year Book*.

3. **Natives Employed in Labour Districts and Kimberley.**—The subjoined tables give an analysis of the natives employed in proclaimed Labour Districts classified according to the territory from which the labour has been obtained. Prior to 1922, figures related to Transvaal Labour Districts only, but since 1922, figures relate to labour districts throughout the Union (excluding alluvial diamond diggings) and Kimberley :—

NATIVES EMPLOYED IN LABOUR DISTRICTS IN EACH YEAR 1910 TO 1924.

Year.	Union.				Portuguese Territories.	Basutoland.	Bechuanaland Protectorate.	Swaziland.	Other Territories.	Grand Total.
	Cape.	Natal and Zululand.	Transvaal.	Orange Free State.						
(i) TOTAL NUMBER EMPLOYED AT 31ST DECEMBER OF EACH YEAR.										
1910...	75,280	36,665	50,228	6,100	100,797	10,775	2,266	4,291	6,749	293,151
1911...	73,911	39,860	52,890	6,796	97,435	11,689	2,592	5,296	5,375	295,844
1912...	86,509	36,878	55,170	6,233	99,651	14,430	2,853	5,205	4,878	311,807
1913...	53,755	29,879	40,958	3,697	84,710	12,509	3,218	3,583	3,017	235,326
1914...	57,111	23,096	36,640	3,996	76,546	15,895	4,481	5,042	2,311	225,118
1915...	39,255	30,246	43,962	4,422	85,809	15,901	4,468	5,589	1,921	281,573
1916...	80,400	25,886	48,126	4,408	85,795	18,287	4,471	4,588	2,109	274,070
1917...	71,712	28,514	42,917	4,475	84,252	15,438	3,187	4,602	2,200	257,297
1918...	58,496	27,057	43,786	4,593	83,346	13,304	2,714	5,151	2,479	240,926
1919...	73,387	31,328	49,415	4,983	83,761	15,556	2,752	5,299	2,321	268,802
1920...	62,943	25,565	48,770	4,877	98,521	16,081	2,578	3,548	2,812	265,695
1921...	73,519	24,335	49,797	4,236	90,916	24,095	3,345	4,958	3,234	278,435
1922...	83,951	30,244	54,822	4,924	86,388	20,836	4,226	6,834	3,750	295,975
1923...	86,361	31,818	54,221	5,355	92,338	22,242	4,736	5,836	3,262	306,169
1924...	85,971	30,119	56,135	5,352	89,779	24,921	4,023	5,493	4,000	305,793
(ii) AVERAGE NUMBER EMPLOYED OVER YEAR.										
1911*..	75,343	38,736	56,451	6,719	101,103	11,284	2,952	4,330	4,934	301,852
1912...	82,223	38,791	62,254	6,906	96,313	13,140	3,572	5,173	5,846	314,218
1913...	78,276	33,860	53,426	5,646	92,217	12,895	4,083	4,773	4,103	289,279
1914...	63,782	29,734	43,452	4,054	76,268	14,549	4,815	4,082	2,773	243,509
1915...	78,625	27,701	43,249	4,236	79,702	15,671	5,020	4,310	1,981	260,495
1916...	84,113	28,352	51,623	4,409	83,704	15,169	4,558	4,984	2,046	278,958
1917...	77,782	28,456	48,081	4,624	80,917	15,817	4,154	4,191	2,247	266,269
1918...	75,355	30,934	47,803	4,831	81,996	16,333	3,518	5,225	2,417	268,412
1919...	79,971	31,041	50,416	4,888	77,964	14,696	3,118	4,661	2,347	269,102
1920...	77,262	29,915	53,389	5,175	92,451	15,743	3,388	4,256	2,590	284,169
1921...	71,039	25,072	51,068	4,478	92,701	19,768	3,673	3,818	3,048	274,665
1922...	69,931	29,488	52,669	4,748	87,071	19,244	4,631	5,296	3,748	276,826
1923 ..	86,894	32,422	57,508	5,226	86,576	21,152	4,506	5,462	3,487	303,233
1924...	83,164	32,678	59,557	5,530	90,398	23,590	4,756	5,524	3,651	308,848
(iii) NUMBER EMPLOYED—MINES AND WORKS ONLY AT 31ST DECEMBER OF EACH YEAR.										
1910...	56,874	14,896	18,699	1,102	97,653	8,210	1,191	2,989	4,922	206,536
1911...	55,578	18,706	19,000	1,244	93,952	8,900	1,461	4,095	3,627	206,563
1912...	67,491	17,796	21,874	1,099	96,919	12,312	1,862	4,225	3,414	226,992
1913...	45,756	13,139	17,559	966	83,165	10,982	2,766	3,149	2,390	179,872
1914...	50,907	11,739	16,835	1,237	75,514	14,446	4,015	4,749	1,669	181,111
1915...	81,210	14,468	21,564	1,297	84,558	14,725	3,927	5,231	1,299	228,279
1916...	72,324	11,524	22,539	1,226	84,692	17,226	3,895	4,235	1,330	218,991
1917...	63,251	11,759	18,104	1,159	83,234	14,309	2,646	4,196	1,230	199,888
1918...	49,440	10,322	16,192	1,129	82,197	12,029	2,082	4,681	1,049	179,121
1919...	62,237	9,920	17,824	1,121	82,540	14,071	2,052	4,728	826	195,319
1920...	51,342	6,541	14,750	956	96,835	14,615	1,754	2,967	892	190,652
1921...	62,137	5,757	14,273	914	88,946	22,115	2,378	4,452	807	201,779
1922...	74,443	13,819	17,755	1,600	84,516	19,027	3,319	6,447	995	221,921
1923...	76,510	15,088	17,979	2,159	90,424	20,603	3,775	5,396	909	232,843
1924...	76,709	13,646	18,609	2,024	87,919	23,291	3,038	4,979	995	231,210

* Figures for 1910 not available.

4. **Deposit and Remittance Agency.**—Regulations were issued under the *Native Labour Regulation Act* relative to the Native Deposit and Remittance Agency established at Johannesburg and its sub-agencies. Since 1913 the following amounts have passed through its books :—

DEPOSIT AND REMITTANCE AGENCY ACCOUNT, 1913 TO 1924.

Year.	Remittances.	Deposits.	Year.	Remittances.	Deposits.
	£	£		£	£
1913.....	40,573	30,930	1919.....	41,745	21,273
1914.....	40,401	21,982	1920.....	28,567	21,595
1915.....	41,742	1,450	1921.....	21,323	10,058
1916.....	52,409	2,740	1922.....	19,909	6,687
1917.....	80,138	14,279	1923.....	15,794	8,879
1918.....	99,469	17,723	1924.....	15,031	11,181

Many natives, however, still continue to remit large sums of money through the agency of friends returning home, employers, and recruiting organizations. Certain of the latter, with the consent of the Government, recruit on contracts under which a portion of the wages stipulated for is paid on the return of the natives to their homes.

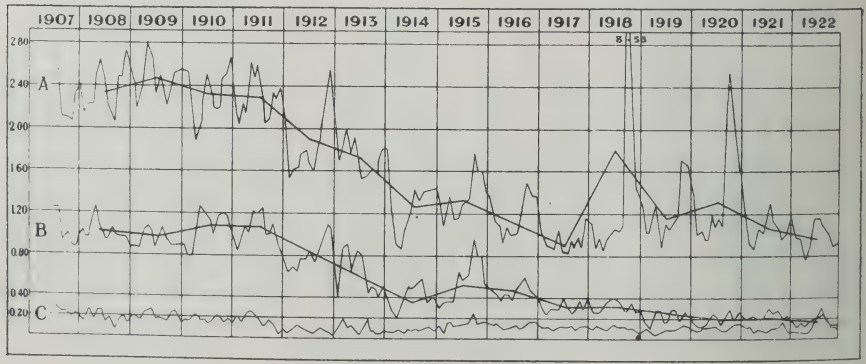
5. **Compensation.**—Under section 22 of the Act, the Director is charged with the duty of assessing and obtaining from employers the amounts payable under the Act for accidents. This principle has been further extended to payments for phthisis, and the amounts payable in case of death have been increased. There is still a considerable amount of dissatisfaction amongst the natives in regard to the present system of compensation, which, however, is a considerable advance on the practice in vogue prior to the passing of the Act. The *Miners' Phthisis Act*, No. 40 of 1919, makes adequate provision for the compensation of native sufferers from silicosis and tuberculosis.

6. **Health and Disease.**—Since the issue of the new regulations and the organization provided under the Act, there has been a steady decline in the death rates. As the result of debates in Parliament in 1912 and 1913, energetic steps were taken with the object of combating the mortality from pneumonia. In the first place the further importation of tropical natives was prohibited, and special measures were adopted in the case of those still employed. Change-houses and waiting-rooms were established at the heads of mine shafts where natives coming off shift could obtain an adequate supply of warm water for washing, and warm clothing in the winter weather. These change-houses have since been in many cases adopted by the mines for all natives.

In addition, on the invitation of the Chamber of Mines, Surgeon-General Gorgas with two other American medical experts visited the Rand and furnished a report on the health conditions. Their recommendations included the establishment of the village hut system, the introduction of families and the centralization of hospitals.

The investigations of the South African Institute for Medical Research and the discovery of a prophylactic for pneumonia have made possible the control of this disease to a very large extent.

MORTALITY OF NATIVES IN TRANSVAAL LABOUR DISTRICTS.



The following tables gives particulars of mortality amongst natives in certain classes of work and in certain areas.

(i) TERRITORIAL ANALYSIS OF MORTALITY FROM DISEASE (RATE PER 1,000 PER ANNUM) AMONG NATIVES EMPLOYED ON GOLD AND COAL MINES.

Territory.	1922.		1923.		1924.	
	Gold Mines.	Coal Mines.	Gold Mines.	Coal Mines.	Gold Mines.	Coal Mines.
UNION OF SOUTH AFRICA—						
Cape Province	8·68	17·18	7·88	20·82	6·26	28·19
Natal and Zululand	7·57	10·64	10·61	10·51	6·66	9·52
Orange Free State	13·59	17·19	6·76	10·49	10·23	20·58
Transvaal	11·06	13·97	8·20	10·20	8·20	15·96
TOTAL	9·00	13·24	8·07	13·40	6·60	16·30
OTHER BRITISH TERRITORIES—						
Basutoland	12·93	28·26	14·05	21·88	13·84	26·80
Bechuanaland	13·21	7·60	18·48	30·77	16·44	27·36
Nyasaland Protectorate	11·49	14·71	18·29	17·85	14·18	18·52
Northern Rhodesia	—	34·48	—	75·00	—	—
Southern Rhodesia	13·99	—	—	16·68	11·90	—
Swaziland	13·63	5·98	12·61	14·83	8·15	9·10
TOTAL	13·08	18·39	14·30	21·03	13·14	21·23
PORTUGUESE TERRITORIES—						
East Coast, South of Lat. 22° S.	12·73	15·85	15·01	17·19	12·69	14·75
Tropical, North of Lat. 22° S.	16·06	—	—	—	—	—
TOTAL	12·74	15·77	15·00	17·14	12·66	14·69
UNCLASSIFIED	—	—	—	—	—	—
TOTAL	11·23	14·80	11·60	15·58	9·99	16·05

NOTE.—Prior to 1922, figures related to Transvaal Labour Districts only, and included certain works not connected with the Mines. From 1922 onwards, other works have been eliminated, and figures relate exclusively to Gold and Coal Mines in Labour Districts throughout the Union.

(ii) COMPARATIVE STATEMANT OF MORTALITY AMONGST NATIVES EMPLOYED ON MINES AND WORKS IN PROCLAIMED LABOUR DISTRICTS.

Heading.	1918.	1919.	1920.	1921.	1922.	1923.	1924.
Average Number Employed	206,102	199,159	206,394	199,936	207,680	226,307	231,811
Deaths from Disease — No.	4,380	2,827	3,248	2,483	2,315	2,682	2,448
Deaths from Disease — Rate per 1,000 p.a.	21·25	14·19	15·74	12·42	11·15	11·85	10·56
Deaths from Accident — No.	497	507	516	457	428	596	617
Deaths from Accident — Rate per 1,000 p.a.	2·41	2·55	2·50	2·29	2·06	2·63	2·66
Total Deaths — No.	4,877	3,334	3,764	2,940	2,743	3,278	3,065
Total Deaths — Rate per 1,000 p.a.	23·66	16·74	18·24	14·70	13·21	14·48	13·22

NOTE.—Prior to 1922, figures related to Transvaal Labour Districts only. From 1922 onwards, figures relate to all Labour Districts throughout the Union (excluding alluvial diamond diggings) and Kimberley.

7. **Mortality from Disease amongst Mine Labourers.**—Dr. W. Watkins-Pitchford, Director of the South African Institute for Medical Research, has prepared a chart, reproduced on page 596, illustrating the monthly mortality rates per 1,000 employed natives, for all diseases, for *lobar pneumonia*, and for *meningitis*, amongst the native labourers on the mines and works in the proclaimed labour districts of the Transvaal. The chart contains three series of records. The topmost curve (A) represents the monthly death-rate from all diseases, whilst superimposed upon it is a bolder line indicating the mean monthly rate for the year; the middle curve (B) is that of the monthly death-rate from *lobar pneumonia*, the mean of the monthly rates being again indicated by a bolder line; and the lowest curve (C) refers to the monthly death-rate from *meningitis*.

The death-rate from all diseases remained uniformly high during the first four years (1908-11); the average of the annual rates for this period was 28·32 per thousand. There is good reason for believing that in the years antecedent to 1908 the death-rate was never materially lower than this figure, and was often considerably above it. The average of the annual rates for the last four years (1919-22) was 13·26, and the rate for the last year (1922) 11·28.

Anti-pneumonia inoculations were begun on the 4th October, 1911, by Sir Almroth Wright, and have been resorted to for the protection of an annually increasing proportion of the natives ever since. At the present time the great majority of the native labourers are inoculated upon arrival at the mines. The large share which *lobar pneumonia* has contributed to the general mortality in the past years is evident from the chart; during the last five or six years this share has become greatly reduced, and the incidence of fatal *lobar pneumonia* is now about the same as that of *meningitis*. In 1913, Sir Spencer Lister, one of the workers at the South African Institute, found that the pneumococci causing *lobar pneumonia* were not all of the same sort; that they could be classified into groups; that 70 per cent. of all cases of *lobar pneumonia* amongst the natives were due to the pneumococci of three particular groups; and that inoculation with vaccine prepared from pneumococci of only one group protected against infections by that group alone. Since these facts were established, the preventive vaccine employed for inoculating the native labourers has comprised selected strains of pneumococcus which are representative of the various groups causing *lobar pneumonia* on the Witwatersrand.

In discussing this chart it must be remembered that it does not represent the mortality amongst inoculated natives only, but the death-rate amongst *all* the native labourers of the mines and works of the Transvaal. The increase in the general mortality in the latter part of 1918, and again in the latter part of 1920, was due to *epidemic influenza*. The slight though definite decline in the mortality from *meningitis*, which coincided with the introduction of anti-pneumonia inoculations, is due to the fact that the pneumococcus is ordinarily responsible for the causation of from 18 to 30 per cent. of cases of *meningitis*.

8. **General Conditions of Native Labour.**—Certain particulars regarding the general conditions of native labour and employment in the Union are given in Chapter VII. The subject has not yet been adequately investigated apart from its bearing on the mining industry; but it is clear, both from general considerations and from the results of the various Industrial Censuses (see Chapter XVII), that the native forms a considerable factor in the industrial organization of the country. This fact implies the concentration in the principal industrial centres of a large body of natives, not very numerous relatively to the total native population of the Union, but constituting a high percentage of the population of the areas concerned. The existence of this class of urban native in manufacturing industry and on the mines has brought in its train a number of problems connected with the control, the remuneration, and the housing of the native worker, and with his relation to the European engaged in the same industry. In recent years tendencies towards industrial and political unrest and some crude form of industrial combination have manifested themselves among urban natives. The strike of 71,000 natives employed on the Witwatersrand mines in 1920 was a phenomenon which had not previously been witnessed in South Africa on a similar scale; and it had particular significance as an evident reflection of sentiments and methods prevailing among European workers.

In its annual report for 1921 the Native Affairs Commission dwelt on this aspect of native evolution, and noted, as symptoms of the new conditions of native life, the increasing disintegration of the old tribal system, the moral decline of the people, the influence of the half-educated agitator, and the existence of a growing dissatisfaction with authority.

9. **Food Consumption of the Native Population.**—A note on this subject will be found in the sixth issue of this *Year Book*.

§ 12. The Natives of South Africa: An Ethnographic Review.

1. **The Physical Aspect.***—The origin of the population found in South Africa by Europeans over four hundred years ago is not known with any degree of scientific certainty. Discoveries made within recent years, however, afford reasonable hope that with the advance of anthropological and geological research in this country the problem will achieve final solution.

In the native population there were found then, as now, three clearly marked groups of peoples, viz. Bushmen, the barbaric nomadic hunters of the desert upland country to the west; Hottentots, the semi-civilized and partially agricultural community of the coastal belt to the south and south-east; and the Bantu tribes of the east and north.

From very early times both prior to and subsequent to the Bantu invasion there have been invasions of the eastern coastal belt by peoples of Asiatic origin. The most recent of these Asiatic intrusions prior to the coming of the European was that of an Islamic Arabian folk. These followed in the wake of earlier intrusions which date back to a very remote period, and it may well be that some pre-Koranic Semitic stock were responsible for the ancient mines and monuments which abound in southern Africa from a latitude far north of the Zambesi in the north to the latitude of Pretoria in the south, and from the Kalahari Desert in the west to the Portuguese East Coast (Bent, 1892; Hall and Neal, 1904; Hall, 1905; Trevor, 1912; Woodburn, 1913; Baumann, 1919; and others). It is at least certain that, whether of recent or ancient arrival, there is an appreciable admixture of Semitic blood in many of the Rhodesian, northern Transvaal, and Portuguese East native tribes. Arabic records indicate that the Bantu invasion of the southern end of the continent has been taking place since the earlier centuries of the Christian era. It is, therefore, generally believed that prior to this time the Bushman and Hottentot peoples remained in relatively undisputed possession of this country (*cf.* Tooke, 1905).

The Bantu tribes present a frankly negroid stock whose birthplace is supposed to have been somewhere in central or even western Africa well north of the equator. By some, too, the Bushman and Hottentot peoples are regarded as being of negroid character and as indistinguishable anthropologically from one another (*cf.* Peringuey and Shrubsall, 1911). There are, however, anatomical, ethnological, and philological reasons for regarding the Hottentot as more closely affiliated with the Brown or Mediterranean race which peopled northern Africa and southern Europe in neolithic times, and for believing that he is a more recent arrival than the Bushman.

The Bushman is then a very ancient inhabitant of southern Africa, and certain of the Bushman peoples, such as the Koranas (Broom, 1923), present anatomical features of a low forehead, beetling eyebrows, and a small brain capacity which link them to very primitive peoples such as the modern Australian aboriginal and to pre-historic types of man like Neanderthal man.

Primitive as he undoubtedly is, the Bushman was not the earliest human visitant of South Africa. In 1913 (Haughton) the skull of a man of greater stature and far greater brain capacity was found at Boskop near Potchefstroom in the Transvaal. Remains of a similar type were found in 1923 (Dart) along the south-eastern coast in a rock shelter under cover of Strandlooper remains (Fitzsimons). Hence the Boskop race anteceded the Bushman race, of which the Strandlooper was an early representative. To this Boskop race is perhaps to be attributed the palaeolithic implements which are so common throughout South Africa, and which differ so markedly from the neolithic implements which characterize the culture of Strandlooper, Bushman, and Hottentot.

But the discovery in 1921 (Smith-Woodward) of a human skull in the Broken Hill Mine of northern Rhodesia has shown conclusively that the story of man in southern Africa has a page more remote than that represented by the Boskop race. Rhodesian man was a type more ape-like than any that has been discovered in Africa; only two representatives of the human stock have been discovered elsewhere in the world (Pithecanthropus, the ape-man of Java, and Piltdown man, from Sussex) which are more primitive.

Darwin believed that the home of man's evolution was Africa.† With the development of anthropological research in this country his contention may yet be proved. In any case, many of the gaps in the story of man in southern Africa will undoubtedly be filled. Broadly the evidence available at present indicates that the Rhodesian race were the most primitive and possibly the earliest comers. They were replaced, possibly from the north, by a very superior and advanced type—the Boskop race. This race succumbed to the Bushman with his smaller form but more deadly arts of warfare. These had their possession questioned in turn by Hottentot and by Bantu. Meantime, in relatively historic times, other northern Semitic invaders have added to the monumental remains and the ethnological confusion which confronts the modern student of mankind at this end of the continent.

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†Since this account was penned the discovery of *Australopithecus africanus* (the man-ape of southern Africa) at Taung, in Bechuanaland, has lent confirmation to the view of Darwin, by revealing in our continent a pre-human stock much more primitive than *Pithecanthropus*.—R. A. D.

2. **The Cultural Aspect.***—As there are several different racial stocks intermingled in the peoples of the Union, so there are elements of different basic culture types to be found among them. According to the most recent researches of ethnologists, there are two types of culture which can be regarded as essentially African, whatever their ultimate origin may have been, viz., the *Hamitic pastoral culture* and the *Negro hoe culture*. Besides these, there are cultures due to migrations of "high" culture types into the regions where these primitive types prevailed, resulting in modifications of culture. Typical of the *Hamitic* culture are the round beehive huts, generally constructed of skins or grass over a framework of wattles, or supple poles; the absence of any kind of bed in the hut, the skin or kaross forming a mantle by day and a bed-covering by night; where grains are cultivated, the underground storehouse for grains, often in the cattle kraal; garments and shields made of skins; bellows made of skins; and, in general, a culture with pastoral characters dominant. Typical of the *Negro* culture are rectangular huts with gable roofs, or cylindrical huts with conical roofs, and a tendency to build on piles. Thus, there is a bed and it is raised above the ground; the storehouse is raised up on piles, and in many cases the hut itself is on piles. The dress is often of bark cloth, not of skins; the shields are of wood or wattle, not of skin; and the dominant interest is grain cultivation, not pastoral pursuits. The tendency of the pastoral culture is to nomadism, that of the hoe culture to settled habitation and continuous occupation of the same land. The former is warlike, the latter peaceful and docile.

In the Union we have a mixture in varying degrees of these culture types, with many other influences which have come in at later times. Thus, our coastal Bantu have the Hamitic culture elements predominating, in hut, dress, grain receptacle, and so on. The central Bantu group in the Union, on the other hand, shows the predominating influence of the Negro culture in the cylindrical huts and the raised corn receptacles, but the dress, the shields, the bellows, etc., are of the Hamitic type. Among the western Bantu we find the Negro type predominating among the Ovampo, the Hamitic type among the Herero. When we come to study the cultures of these peoples more intimately, we find that there are still further differentiations due to the intermingling of peoples fundamentally of one culture type, who have been separated long enough to develop along somewhat different lines before joining together to form one people again. Thus we find among Bantu peoples at least two distinct sets of terms for the *high god*, in the sense of the creator, the set in the east consisting of various forms of the word *Mulungu*, while in the west some form of the word *Nzambe* is used. Now, among our western Bantu, the Herero and the Ovampo, we find both sets of words used, and there are many other signs of intermixture in the organization of these peoples. The survey, then, of culture traits, so far as it has gone, shows an amazing degree of culture-contact to have taken place, but we are very far from being in the happy position of the Americans, who through an exceedingly thorough survey of the culture of American Indian tribes, are to-day able to tell exactly the spread of all culture traits, with their areas of distribution, as well as their probable centre of dispersal and origination.

A thorough analysis of the tribes in the Union in this way is very much to be desired, for it would help very considerably in the unravelling of the elements which have gone to the make-up of the cultures of our Bantu peoples. However, quite apart from these ethnological analyses, there is the question of the actual culture of the Bantu peoples as it has been welded into a living whole, and here again we find a great richness in the culture types of the Union, though we have as yet little more than a superficial insight into any of them.

We have the type of the primitive nomadic hunter represented by two quite different peoples, the Bushman and the Bergdama; the type of nomadic pastoralist by two different people again, the Bantu Herero and the Hottentot. For the rest, we have Bantu peoples who are both pastoralists and hoe cultivators, and who present an amazing variety of cultures on the basis of these two underlying systems of sustenance.

The world over it has been found that primitive peoples attribute inherent powers to the things which are of great importance and value in the social life. That is to say, the ritual, or ceremonial and religious life, will very largely be concerned just with these things of essential social value. Among hunting peoples, it will be the animals on which they depend so largely for food which are the objects of ritual; among pastoral peoples, the cattle form the centre not only of the social life but also of the ceremonial life; while among cultivators, it is the soil, the seed time, and the harvest which form the objects of the ceremonial. Where we have all three interests in the lives of the people, as among so many of our Bantu, we shall find traces of all three types of ritual attitude.

The Bushmen, who once were to be found all over the Union, are to-day reduced to living in the most unfavourable areas. Little bands of them are living in the extreme north of the South West Africa territory, while all others in the Union are in the Kalahari

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Desert. Wherever the Bushmen have been observed they have been found to have but the simplest organization. They are divided into little hunting bands, each of which owns a definite hunting territory over which it wanders and out of which it is dangerous to go except with the permission of the neighbouring band. Within the hunting territory members of the band are free to go where they like, and the organization of the band is of the loosest. There is no chief, though a skilled hunter and the older, more experienced, men in general, naturally have a great influence in the councils of the people. The only other social structure of any importance, besides the hunting band, is the family, consisting of a man and his wife, or wives, with their dependent children. Hunting peoples with such an extremely simple organization are rare. Hence, it is of more than usual importance that we should know all that we possibly can about the Bushmen. Further, if the hypothesis put forward by Sollas and others should prove correct, that we have in our Bushmen the last remnants of a people which once inhabited southern Europe and produced the wonderful cave-paintings there, it would be a great reproach to the people of the Union that they had neglected the opportunity of learning all there was possibly to be learnt concerning the Bushmen.

We do not know the exact structure of the family among the Bushmen, nor the rights and duties of relatives towards one another, so that our knowledge of the moral system of the Bushmen is negligible. Of their technology, their weapons, and implements we have pretty full accounts, and we have a large collection of their myths together with the native texts. These texts, which are of the utmost value for philology, are unfortunately for the most part only tantalizing to the social anthropologist. They are largely a sealed book for lack of the intimate knowledge of the outlook of these people on the world, which would alone enable us to understand the full import of what is barely indicated in the word form of the myths. From references in their legends and myths we know that the Bushmen had a careful ritual connected with the animals, but we do not know in any detail what that ritual was or is.

"We show respect to the game, because we wish that the game may die. For the game would not die if we did not show respect to it," is what one old man told Dr. Bleek, to whom and to whose family we are indebted chiefly for the preservation of the myths. In order for man to remain supreme over the animals, it is necessary that he keep the powers of the universe on his side, and this he can do only by acting in the most careful manner, as this was established by the ancestors of old. It is just this order, established by the ancestors, that we wish to know about. Myths in general serve to express certain ways of thinking and feeling about the society and its relation to the world of nature, and thereby to maintain these ways of thought and feeling, and pass them on to succeeding generations. Only by an intimate study of the ways and habits of the fauna known to the Bushmen, and of the way in which the Bushmen link these habits up with other observed phenomena, e.g. the weather, can we ever understand the real meaning of the myths. Whether it is still possible for someone to gain this insight by living the life of the Bushmen, as they lead it in the Kalahari Desert, or in Angola, is hard to say, but the attempt is well worth making.

As for the Bushman paintings, which have always been the chief object of interest in connection with these people, they belong now to the realm of archaeology, for it has proved impossible so far to find any living people who could interpret them to us. They remain as a very valuable record of an art that seems to be lost, and they have proved, and will in the future probably prove still further, a most important link in the chain of evidence connecting our primitive African people with the palaeolithic people of Europe.

The second purely hunting people we have in the Union are the Bergdama, who have attracted far less attention than the Bushmen. According to Vedder, they are lower in the scale of culture than any Bushman people. Formerly inhabiting the whole of the northern part of South West Africa, or Damaraland, as it is called, they are now scattered through the length and breadth of South West Africa, a totally disrupted people; or they are to be sought in the fastnesses of the Erongo and Brandberg mountains and other little known parts of the Namib area of South West Africa.

We owe practically all we know of the culture of this people to the missionary H. Vedder, who has recently published in two volumes an account of them together with texts of their legends and myths. According to him, there are probably two strata of these peoples, as it were, the more primitive stratum being composed of people who have goats on which they can depend for a part of their sustenance. The Bergdama are interesting because they seem to be the most primitive of the Negro peoples known to us, apart from the Congo pigmies, with whom, it is suggested by Vedder, they may have affiliations. What their original language was is not known, for they have been so long enslaved by the Hottentots that they have completely adopted the Hottentot language and, at least superficially, the Hottentot social organization. Yet in ceremonial their lives seem to have been but little influenced by the Hottentots, and we find among them what seems to be a very important feature of many Bantu cultures, the sacred fire round which the whole life of the society centres.

The Bergdama are simply organized. Each little local group is entirely independent, and consists of a patriarchal family, together with any relatives who may put themselves under the protection of the head of the group, and a certain number of dependent people,

hardly to be called slaves, but families who do not feel capable of founding a kraal or village of their own, and prefer to have their lives organized by a strong head of a family. This little group centres its life round a sacred fire which must never be allowed to go out, but which must be guarded day and night by the chief wife of the patriarch. Day by day, when the members of the society go out to seek for food, the head of the kraal and the old men sit guarding the fire, and as long as that is aglow and respected by all, the hunters and collectors will find food for the day. All game must be laid by the sacred fire, and certain portions of it must be eaten ceremonially by the elders of the kraal. Each kind of berry and root, as it ripens in the spring or autumn, must be brought to the sacred fire before it can be eaten by the people; all good, all evil, hangs upon the guarding of the fire from all impurities, which come from all breaches in the regulations as laid down in the traditions of the tribe.

The researches of Vedder are a most valuable addition to our knowledge of African peoples. What is needed now is that some student should go among the quite wild Bergdama of the Namib, where it might still be possible to find some traces of their original language, and some remnants of their culture uninfluenced by that of the Hottentots.

The two purely pastoral peoples of South Africa, the Hottentots and the Herero, are distinctly more closely organized than either the Bergdama or the Bushmen. Among the Hottentots, in addition to the family, we have the organization of patrilineal sibs, that is, as ocial structure, which holds together all families claiming a common descent from some remote ancestor in the male line. These sibs are named after the ancestor, and marriage within the sib is strictly forbidden. This patrilineal sib structure is very characteristic of pastoral peoples, and both among the Herero and the Hottentots it is distinctly stronger than the tribe, which consists of a rather loose aggregation of several sibs, with the chieftainship hereditary in one of them. A very good index of the power of the central authority among African peoples is to be found in the extent to which it is able to control the vendetta, that is, the carrying out of blood vengeance, when homicide has been committed by a member of one sib on the member of another sib in the tribe. In the most completely developed tribes culpable homicide is a crime, punished by the central authority. In the least developed tribes, the sib claims the sole right of revenge for the loss of a member. Now, among both the Herero and Hottentots, we find the central authority intervening in the dispute in the attempt to make the injured sib accept compensation in the form of cattle for its loss, but among both peoples it has remained legitimate for the injured party to refuse to accept this compensation and insist on blood vengeance.

Unfortunately, the Hottentot culture is in the last stages of decay, so that it is hardly possible to recover more of it than we have. We find among them a developed ritual connected with their cattle, which are, as they put it, "the grass which God gave them to eat." On the other hand, instead of the strongly-developed ancestral worship which we find among all the Bantu of the Union, we get the worship of Heroes derived partly from animistic beliefs, partly from the personification of the natural forces producing rain. We find, too, that the communal meal is the great means of attaining social solidarity; of curing a sick person by aggregating him to the group of those who have had the disease and recovered; of aggregating young men and women to the life of full members of the tribe; of bestowing on a young mother the solidarity of the group of mothers with strong and healthy children; of welcoming a widow, or widower, into the group of the widowed, and so giving them a new place in the society as a whole. Further, if the well-being of humans is to be attained through communion by means of a communal meal, no less does the well-being of the stock depend on healthy conditions being maintained in the community. Any breach with the traditions of the past, any toleration of slackness in carrying out the regulations established for all contingencies in the life of the people, is bound to affect the stock adversely. Great care, then, is taken to keep all pollution from the cattle kraal, and the stock is included in any lustrations and other purification ceremonies that take place.

The Herero deserves to have the most thorough investigation that can be made of them by a competent social anthropologist. So far as we know, there is no sign of their ever having practised agriculture, which is a very rare condition among Bantu peoples. Further, we find among them more persistent traces of a former condition of totemism than among our other Bantu peoples; and we find clear signs of two distinct influences in the structure of their culture as a whole. Totemism in its typical form is found only among hunting peoples. Indeed, the most fruitful hypothesis regarding totemism is that of Prof. A. R. Brown, viz. that it is the result of the development of the sib among hunting peoples. It is extremely likely that the Bantu peoples were all hunters for a very long time before they became cultivators or herders, and before their contact with Europeans hunting always occupied a large place in their lives. However, they have been cultivators, or herders, or both, for so long, that their original totemic condition has been very much modified. In fact, in some cases there are no traces of totemism to be found. Among the Herero, however, we have totems chiefly of different kinds of wild animals and natural phenomena. Now, in totemic societies, membership of the sib may be inherited either through the mother, or through the father, seldom through both. Among the Herero, we find that a person belongs both to the *eanda* of his mother and the *oruzo* of his father and has different affiliations

in both cases. The religious life is almost entirely connected with the patrilineal sibs, and is a developed form of ancestor worship. Here, again, we find the sacred fire serving as altar. At the chief's kraal the ancestors of the chief are worshipped and represent the ancestors of the whole tribe. In addition, we get the sacred fire in the kraal of each head of a family lighted, in the first instance, from that of the chief. None of these sacred fires must ever be allowed to go out. To this fire the women, who do the milking among these people, bring the milk each night and morning to have it blessed by the kraal head and the ancestors. In the Kaokoveld there are still to be found Herero people practically untouched by all the turmoil and stress of the Herero wars, and it would be of the utmost value if detailed information could be gained from them. The sacred fig tree which plays so great a part among the Bantu of East Africa is of significance, too, among the Herero.

We come now to various Bantu tribes which practise both cultivation and herding. The Ovampo in the west are still divided into totemic sibs which are inherited both through the mother and through the father, so that we get a dual organization of the people. The Bantu of the central area, the Bechuana and Basuto groups, have remains of a tribal totemism; that is, each independent section of the people, which may at one time have represented a sib, has a *siboko*, a praise name, taken from some animal or some natural phenomenon. In the old days there was a definite ritual connected with the specie of animal so used. However, nowadays the main division of the people is into patrilineal sibs, and possesion of a common *siboko* is no bar to marriage, as would be the case in true totemic societies. In the coastal area all traces of totemism, if it was ever present, have disappeared, and we find the patriarchal family strongly developed in a tribal structure also well organized. Among the Ovampo blood revenge is still practised, but among the central and coastal Bantu of the Union the tribal authority is supreme. Here we find that all persons belong to the chief. Any injury to them is, therefore, an injury to him, and compensation for death or injury must be paid to him. Here we get the first signs of a central authority concerning itself with crimes in our sense of the word.

Our knowledge of the inheritance system of our Bantu peoples is pretty thorough, and also of their laws so far as these have been studied by magistrates and native commissioners, but we have a very inadequate idea of the kinship systems and kinship customs, of all these peoples and totally inadequate accounts of their ceremonial. It is most urgent that a thorough investigation should be made of the Zulu and other coastal tribes. For instance, if we are really ever to understand the full import of their manners and customs, it is above all essential that we should know in detail the full meaning of their pastoral life, and this as yet we do not know. We know that among the Zulus and among the Pondo drinking the milk from the cows of another sib is equivalent to pledging blood-brotherhood with that sib, so that henceforth marriage into it is forbidden. This simple fact suggests innumerable questions which we are unable to answer. If the milk of the cows of a herd is like the blood of the sib, which is sacred to its members, all the customs connected with *lobola*, with compensation for homicide and many others, take on a new significance, and it should be recognized that cattle are not in any true sense a medium of exchange, but in part a symbol of wealth, in part actually one with the society to which they belong, linked up with its good and evil fortune. They are more than mere possessions or property; they are, at the very least, the medium through which man communes with his gods. Contact with our ideas has changed a great deal of the native outlook on life, and the rigid fixing of the *lobola*, together with the substitution of a money payment, has introduced into this custom ideas which were originally foreign to it, so far as we can tell from our limited knowledge. Again, we have practically no detailed information concerning the ceremonial life of the women, especially in connection with the cultivation of the fields which is their particular province.

A real scientific study of the culture of one or more of our native peoples is the great need at the present time.

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3. **The Linguistic Aspect.***—Dealing with the natives of South Africa linguistically, we find that there are three types of language represented, the *isolating*, the *inflexional*, and the *agglutinating-inflexional*.

In regular *isolating* languages, all words are monosyllables, and undergo no modification in form to express person, gender, number, case, mood, or tense, all syntactical relations being shown by word-order in the sentence. In these languages intonation or pitch takes the place of syllabic stress. The isolating type of language is represented in Africa by the extensive Sudanian group of languages, spoken by the negroes of West Africa and the Sudan; but in South Africa the languages of the Bushmen, though vastly different in most respects from the Sudanian group, have distinct features of the isolating type. Bushmen-speaking peoples are almost extinct to-day, but remnants speaking the ! Kung language are still to be found in the north of South West Africa, and other scattered peoples are found in the Kalahari Desert.

Th. Hahn, in his introduction to "Tsuni goam," mentions seven distinct Bushman languages. Dr. W. H. I. Bleek, in his texts, seems to indicate two main languages, that of the Cape Province and that of the ! Kung, the former having at least four dialects. Dr. Passarge thinks that there are two main stocks of Bushmen linguistically, whose respective areas meet about mid-Kalahari. Members of these stocks, he states, cannot understand each other; and there are many sub-divisions within these groups. Herr Vedder, a German missionary, has written a small treatise on the ! Kung language in German, and we have numerous texts published by Drs. W. H. I. Bleek and Lucy Lloyd. From these we are able to gauge, to a certain extent, the nature of these fast-dying languages.

Unlike Hottentot the Bushman languages are genderless. If they were ever sex-denoting they have now lost those signs of sex-gender which are so clearly seen in Hottentot. Unlike the Sudanian languages, which are of the regular isolating type, the roots of many Bushman words are apparently polysyllabic, though, as Theal points out, it is possible that upon very close analysis some of those polysyllables might prove to be really composites.

The striking feature of the Bushman languages, however, is the strangeness of the phonetics to the European ear. "Bushman" abounds in click sounds, nasals, and ejectives (sounds produced with simultaneous closure of the glottis). The most feasible theory is that the clicks originated with the Bushmen or their ancestors, and that it was from them that the Hottentots derived the clicks they use, and in turn themselves influenced those of the Bantu peoples who employ clicks. In the two main types of "Bushman" no less than six different positional types of clicks are used, each of which may be pronounced unvoiced, voiced, or nasal, and in various combinations with other consonants. The Hottentots employ only four positional types of clicks, the Zulu-Xosa section of the Bantu only three, and the Sutos only two in an extremely limited manner.

In *inflexional* languages the meaning of words is modified by the use of prefixes or suffixes, which cannot be recognized as separate words, and also by internal change of vowel. Inflexional languages alone recognize grammatically the distinction between masculine and feminine, i.e. they have grammatical sex-gender. In South Africa this type of language is represented by the languages of the Hottentots. The Hottentot languages have little or no grammatical affinity to those of the Bushman, though insufficient study makes any definite conclusions on this matter impossible. As has already been noticed, "Hottentot" owes a great deal to "Bushman" in its phonetics, other phenomena, besides the clicks, being traceable to past Bushman intermarriage and contact-influence. It is further noticed that "Bushman" and "Hottentot" have borrowed many words one from the other, and hence there are many similarities of vocabulary. But Hottentot has its grammatical affinities with the Hamitic inflexional languages of North Africa, structural resemblances even to Ancient Egyptian being very marked.

The philologist Hahn enumerated the names of nearly a dozen Hottentot or Khoikhoi tribes, but in all probability some were merely sub-divisions of Nama or ! Kora. Amongst them he names the Griqua, who are a bastard race. However, four Hottentot languages have been differentiated, though of these two are quite extinct, and little or nothing may now be heard of a third. The languages are these: (1) Nama, still spoken by a number of people in the South West African territory, and by the Berg Demara, a Bantu people who were subjugated by the Nama; (2) ! Kora, now, as far as we know, extinct, which used to be spoken between the Vaal and the Caledon Rivers, and along the Orange towards Namaqualand; (3) the original Cape Hottentot, now quite extinct; and (4) ! Gona of the Eastern Province, also extinct. Regarding the last two languages, little more than the names is known apart from a few words contained in the works of early travellers; but a missionary, named Wuras, has written both vocabulary and grammatical works concerning the ! Kora. In Nama, besides a translation of the New Testament and parts of the Old Testament, there are several grammatical and other works available, and even a monthly periodical is published at Keetmanshoop by the Rhenish mission.

Without going into any detail, we might outline the main characteristics of the Nama Hottentot language as follows: The possession of (1) three grammatical sex-genders,

* By C. M. Doke, M.A. (Senior Lecturer in Bantu Studies, University of the Witwatersrand).

masculine, feminine, and common; (2) three numbers, singular, dual, and plural; (3) three cases of nouns and pronouns, nominative, accusative, and vocative; (4) the decimal system of numeration; (5) suffix formation in conjugating verbs; (6) a wealth of suffixal verbal derivatives, very reminiscent of those of Bantu; (7) a wealth of pronominal forms; (8) a wide use of abstract nouns; and (9) a monosyllabic tendency.

The third and most important language family represented in South Africa is the Bantu, which might be described as *agglutinating tending to inflexional*. In real agglutinating languages, the formative elements, whether prefixal or suffixal, can always be recognized as independent words detachable from the root. In Bantu this feature is tending to become inflexional, the formative elements fast losing their distinctive meanings. The main peculiarities are (1) the system of the alliterative concord, with a division of nouns into classes according to the form of the prefix; (2) the absence of grammatical sex-gender; (3) the high development of the verb tenses and the wealth of derivative forms; (4) the wide use of onomatopoeic radicals as a distinct grammatical part of speech; and (5) the importance of "tone" as a grammatical and semantic feature. From the phonetic point of view it is noteworthy that each syllable in Bantu languages ends in a vowel or syllabic voiced continuant, and that the vowel system is remarkably simple, there being three basic vowels, *a*, *i*, and *u*, while mid-forward and mid-back vowels (*e* and *o*) each have two varieties making generally seven different types of vowels in a Bantu language.

The most important Bantu languages indigenous to the Union are:—

(1) The Zulu-Xosa group, along the south-east coast from Zululand, through Natal, the Transkei, and Kaffraria, comprising, along with the many sub dialects, Xosa, Zulu, and Swazi. It is in the group of the Bantu languages that the influence of the Bushman-Hottentot clicks is most noticeable.

(2) The Chwana-Suto group in Bechuanaland, the Transvaal, the Orange Free State, and Basutoland, comprising the Chwana dialects of Mangwato, Tlaping, Rolong, and others, Venda in the Northern Transvaal, Pedi or Northern Suto, and the Suto proper of Basutoland. In the last-named only is the Bushman-Hottentot click influence noticed, and that to only a slight extent.

(3) The Thonga language in the Eastern Transvaal, with its ally Gwamba to the north. Thonga is the principal language of a group spoken in Moçambique, principally around Delagoa Bay.

(4) The Bantu languages of the South West African territory of which the principal is Herero, with Ndonga in the extreme north.

There is a fairly wide range of literature in and concerning these Bantu languages, especially in Xosa, Zulu, Suto, Chwana, Thonga (or Tshangaan as it is called), and Herero, and in the first three of these a native literature is growing, and native newspapers are being published. There is, however, a dearth of *real scientific* work in grammars or dictionaries; and the study of the phonetics of these languages is lamentably deficient. Nevertheless, the names of several pioneer missionaries are connected with most valuable work in the past. For Xosa there are Boyce (1834), Ayliff (1846), Appleyard (1850), Davis (1872), and more recently Kropf, Stewart, and McLaren; for Zulu, Dohne (1857), Grout (1859), Colenso (1865), Callaway (1868), and more recently Roberts and Bryant; for Chwana, Archbell (1837), Brown (1876), Crisp (1880), and more recently Wookey; for Suto, Casalis (1841), Kruger (1878), Mabille and Jacottet (1888), and Dieterlen; for Thonga, in recent years, Junod and Chatelain; for Herero, Hahn (1857), Kolbe (1883), and Brinckner (1886). In addition to this mass of missionary work in grammar, dictionary, and translation, the work of Professor Meinhof in Germany, and such colleagues of his as Endemann and Irle, must be mentioned.

The great work of Dr. Bleek, the eminent philologist, "A Comparative Grammar of the South African Languages," must not be overlooked. Dr. Bleek, who unfortunately died in 1875, when only a small portion of his work had been completed, was one of the first to recognize the essential oneness of these languages. It was he who first used the term "Bantu" to designate them, and his "Comparative Grammar" was the first attempt at a serious comparison of their common characteristics. A real comparative grammar of the Bantu languages remains to be written; but before that can be done with any measure of success, it is evident that the individual languages must be reduced to a common phonetic basis, and a common and more scientific grammatical basis. Practically all the grammatical work hitherto accomplished has been moulded on European or classical grammar lines, and it remains for a new, a true Bantu, view of grammar to be applied, before many baffling mysteries can be solved.

CHAPTER XXVII.

THE TERRITORY OF SOUTH WEST AFRICA.

§ 1. History.

1. **Pioneer Work by Cape Government.**—In the year 1814 the British Government (of the Cape of Good Hope) sent a German missionary, Von Schmelen, to carry on mission work amongst the Hottentots living across the Orange River in Great Namaqualand, as the southern portion of the territory was then called. This man married a Hottentot girl and settled down near Okahandja as an influential member of the tribe of Afrikander Hottentots under Jager Afrikaner.

2. **The Rhenish Missions.**—When once Von Schmelen was fairly established he seems to have forgotten all about the Cape Government, and to have placed himself in communication with Berlin. His reports upon the country, its inhabitants, and possibilities, had the result of attracting other missionaries to South West Africa; and eventually, about the year 1840, the *Rhenish Missionary Society* of Berlin began to take an active interest in the new field for missionary labour and enterprise; so much so, that in 1869 thriving mission stations had been established at nearly every important station in Great Namaqualand and Damaraland in the north. In conjunction with each mission station it was found necessary to establish a general store from the profits of which the missionary and his family could live, and from which natives could be supplied with clothing, arms, and ammunition, in exchange for cattle, sheep, and the products of the chase. As the field of missionary labour was extended by the founding of new mission stations, so also the field for mercantile achievement expanded. Cape Colonial traders then for the first time appeared upon the scene with wagons laden with goods, which were bartered to the natives for stock and produce. This competition seriously affected the commercial operations of the missionaries, who eventually arranged for the formation of a limited liability company, which was floated in Germany in 1873 for the purpose of trading in the mission fields of the Rhenish Missionary Society. The society undertook to give the company all the assistance and support possible, and in return therefor was to receive half the net profits. The main object of the company was to develop the cattle business and open up an export trade with Europe. Owing, however, to the inevitable transport difficulties, the incapacity and dishonesty of those in charge of the management, and the outbreak of a Herero-Hottentot war in 1880, the company became hopelessly insolvent, and went into liquidation.

3. **British Mission of 1876 and Annexation of Walvis Bay.**—In the meantime an event of importance had taken place. During the year 1876 a British Commissioner, Mr. C. W. Palgrave, entered the country with a view to ascertaining the wishes of the native chiefs in regard to control by Great Britain. He was well received by the Hereros, who asked him "to send some one to rule over us and be the head of our country." The Bastards of Rehoboth and several Hottentot tribes also asked for British protection and control. In his report to the Cape Governor, Mr. Palgrave recommended the annexation, as British territory, of the whole coast line of Great Namaqualand and Damaraland; but the British Government in 1878 only annexed Walvis Bay and a few square miles of desert sand in its vicinity. Of this failure German enterprise was not slow to take advantage, and the next important step to mark the extension of German influence, and the acquisition of that which Great Britain had definitely discarded as worthless, is represented by the activities of Adolph Luderitz, a merchant of Bremen, who arrived in 1882.

4. **German Influence and Annexation.**—It did not take Luderitz long to discover that, after Walvis Bay, the bay known as Angra Pequena (now known as Luderitz) was the best port on the coast line between the Orange and Kunene Rivers, and he accordingly purchased from the Hottentot Chief Joseph Fredericks, of Bethany, a strip of territory situated between the 26th degree of southern latitude and the Orange River, bounded on the

west by the sea and on the east by a line running twenty miles inland from north to south. On the 24th April, 1884, Prince Bismarck formally sanctioned the hoisting of the German flag at Angra Pequena, and placed Luderitz and his acquisition under the protection of the German Empire. Encouraged by this recognition Luderitz purchased from the captain of the Topnaar Hottentots, who lived near Walvis Bay, the remainder of the coast belt, extending to Cape Frio. He left for Germany, and in 1885 succeeded in floating a company called the *German Colonial Company for South West Africa*, with a capital of M.300,000 (£15,000); and in October of that year the Government Controller of that Company, Dr. Goering, arrived at Luderitz. In the year 1889 the German Government sent Captain von François with a detachment of soldiers to protect German interests, and in July, 1890, the country was formally annexed by Germany.

5. **Later German Colonization.**—A census of the white population taken in 1903 showed a total of 4,640 individuals, and the native rebellion of 1904, besides necessitating the introduction of 1,114 officers and 18,286 non-commissioned officers and men, had the result of bringing the country and its possibilities to the notice of German investors; whilst the discovery of diamonds at Luderitz in 1908 supplied a further stimulus to immigration. Many of the soldiers, upon completion of the campaign, settled upon farms; and merchants who had made money during that time applied themselves to the development of pastoral pursuits, an example which in 1909 was followed by the Government in the establishment of horse, cattle, and sheep breeding centres at Nauchas, Neudamm, and other places. Prior to 1904 the only railway in existence was a narrow gauge line from Swakopmund to Windhoek; but the exigencies of the campaign above described necessitated the construction of lines from Luderitz to Keetmanshoop, Karibib to Tsumeb, and Windhoek to Keetmanshoop, though these lines were not all completed at the termination of the rebellion in 1906. From that time the progress of the country was rapid. Commerce transformed Luderitz and Swakopmund from mere landing stages into flourishing seaports, whilst the inland trade resulted in the establishment of towns and villages throughout the territory. The Government of the country passed from the military to the civil officials, for whom excellent quarters and offices were erected.

Farms on easy terms of payment were granted to settlers; money was advanced them by a Land Bank supported by Government, and water-boring facilities were provided. Such was the position at the outbreak of the European war; and, although a great deal still remains to be done, there can be no doubt that the ground work for which the Germans were responsible was thorough.

6. **British Campaign and Conquest by General Botha.**—Windhoek, the capital town of the territory, was occupied on the 12th May, 1915, and on the 9th of July of the same year the German forces surrendered at Korab, which is situated on the narrow-gauge railway near Otavi junction.

Details of the campaign are given in the third issue of the *Year Book*.

§ 2. Physical Characteristics.

1. **Area and Boundaries.**—The territory of South West Africa (including the Caprivi Zipfel) embraces an area of 322,393 square miles (83,500,000 hectares), and excluding the Caprivi Zipfel, 311,820 square miles (80,759,563 hectares). It lies between latitudes 17° south and 28° 57′ south, the Atlantic Ocean, and longitude 21° east; so that, from practically the centre of the Rehoboth District northwards, it falls within the tropics, and from there southwards within the South Temperate Zone. As the Caprivi Zipfel for administration purposes has been transferred to the Protectorate of British Bechuanaland and Walvis Bay, which is 374 square miles in extent, is administered by the Administration of South West Africa; the area of the territory as now administered by the Administration is 312,194 square miles (80,856,427 hectares).

The boundaries of the territory are—

North....Angola, which for a considerable distance is separated from South West Africa by the Kunene and Okawango Rivers.

East.....The Protectorate of British Bechuanaland and the Province of the Cape of Good Hope of the Union of South Africa.

South....The Orange River, which is also the boundary of the Province of the Cape of Good Hope of the Union of South Africa.

West.....The Atlantic Ocean.

2. **Angola–South West Africa Boundary.**—An agreement for the settlement of the dispute concerning that portion of the Angola–South West Africa boundary, lying between the Kunene and the Okawango Rivers, was concluded in June, 1926. The plenipotentiaries were Dr. Augusto de Vasconcellos, Vice-Admiral Ernesto de Vasconcellos, and Col. Carlos

Roma Machado, representing the Republic of Portugal, and the Hon. Justice Jacob de Villiers (Judge of Appeal), the Hon. G. R. Hofmeyr (ex-Administrator of South West Africa), and Mr. Reenen Jacob van Reenen, representing the Mandatory Power.

3. **Physical Features.**—(i) *Formation.*—South West Africa is practically one large plateau which forms a portion of the main South African plateau of its great interior basin, the Kalahari. It has a mean average height of approximately 3,600 feet above sea level, and slopes gradually, especially on the eastern portion of the territory, from 2,500 feet in the south to 4,800 feet in the north, while it is interspersed with small mountain ranges, of which the Moltkeblick rises up as high as 7,886 feet above sea level. The Brandberg, which is near the coast and is the highest of these, has an elevation of 8,277 feet. The plateau or interior upland is separated from the sea by a practically rainless desert commonly called the Namib, which rises rapidly, but evenly, from the sea to the plateau, having an average width of 100 kilometres (62 miles), and attaining its greatest width towards the south, and its narrowest towards the north, the annual rainfall there being less than one inch. A good deal of the plateau in the south may be classed as semi-desert, as the average annual rainfall is less than 10 inches, but in the north there is a marked improvement, the average rainfall in parts being over 20 inches.

The edge of the South African Plateau is well defined in the north and south of South West Africa by broken ranges of mountains like the Kaokoveld and Aus-Kubub Mountains (Huib Hochbene), but in the centre there is no defined escarpment. The plateau attains its greatest average elevation around Windhoek, which lies between the Khomas Hochlands and the Auas Mountains. From there, isolated eminences and ranges superimposed on the main plateau extend in a northerly direction to the Kaokoveld Mountains. To the south, the Highlands are succeeded at some little distance by the plateau and the table-topped mountains of Great Namaqualand; eastward and north-east of these elevated tracts, the upland assumes a very level character, composed mostly of sand dune formation merging eventually everywhere into the sandveld of the Kalahari.

(ii) *Mountains.*—The most mountainous section is the Windhoek district, in which are—

(1) The Khomas Hochland, a very rugged lofty tableland, with a mean altitude of 6,000 feet, rising up in places to 6,700 feet above sea level;

(2) Rugged ranges north-east of Windhoek, of which the principal are the Onyati Mountains (7,198 feet); and

(3) To the south and south-east, the Auas Mountains, having a mean average elevation of approximately 6,700 feet, attaining their greatest altitude in the Moltkeblick Peak (7,886 feet). In this section, the Kuiseb, the Fish, the Elephant, the Nosob, the Swakop, and the Auob rivers have their source, and this may practically be termed the watershed of South West Africa.

With the exception of the Kaokoveld mountains, which form the edge of the plateau, the rest of the mountains are broken ranges and isolated eminences rising out of the Great Plateau. Among these we find the Amatako (7,270 feet), Brandberg (8,277 feet), Erongo (7,044 feet), Chuos (5,081 feet), Naukluft (6,266 feet), Weissrand (3,770 feet), Tsaris (5,749 feet), Schwarzrand (4,399 feet), Tiras (5,930 feet), Huib Hochbene (Aus Kubub), Klein Karas (4,729 feet), and Gross Karas (6,168 feet).

(iii) *Rivers.*—With the exception of the boundary rivers, the Kunene, Okawango, and Orange Rivers, and the Kwandi in the Caprivi Zipfel, there are no perennial streams. There are, however, dry sandy river beds, which flow after heavy rains, but except in very wet seasons, few of these flow for any considerable distance, such as the Swakop, the Kuiseb, and the Omaruru. These river beds have the appearance of having been blocked up by loose sand, under which the water percolates and eventually reaches the sea. By sinking shallow wells in them plentiful supplies of fresh water are obtained; a good illustration of this is at Rooibank, near the mouth of the Kuiseb, and at Goanikontes, near the mouth of the Swakop.

The principal of these sandy rivers are: The White Nosob, the Black Nosob, the Vereinigte Nosob, the Auob, and the Elephant, all of which flow east and south-east; the Fish, which flows south; and the Kuiseb, the Swakop, the Omaruru, and the Ugab, which flow west.

(iv) *Ocean Currents.*—The coast is swept by the cold Benguella current, which originates in the Antarctic Ocean and flows along the western coast of South Africa as far as the mouth of the Congo. There can be no doubt that the arid character of the Namib is due primarily to the influence of this current.

(v) *Pans.*—Very characteristic of the northern and eastern section of the territory are the peculiar shallow depressions without any outlet, commonly known as *pans*, which range in diameter up to a couple of miles. They can be classified according to the water contained in them as fresh water pans, brack pans, and salt pans. The surface of the salt pans, such as those at Aminuis and west of the Etosha pan, becomes covered during the dry season with a dazzling white crust composed chiefly of common salt. The Etosha Pan can

hardly be classified amongst these occurrences, as it covers an area of approximately 1,355 square miles (351,700 hectares). In the winter it is dry, but during the summer months or wet season it is covered by a shallow sheet of water which varies according to the rainfall and the amount of water flowing into it from the Kunene when it is in flood by way of the Kwamatuo and Oware Omarambas.

4. **Vegetation.**—(i) *Namib.**—Along the sea coast there is no vegetation whatsoever; from about twenty-five miles inland the landscape is characterized by such plants as the milk bush (*Euphorbia*) and cacti; towards the east, in years of abundant rainfall, it is fairly well grassed. In the river beds which traverse it, trees of rich verdure are found, such as various acacias, the principal of which are the Kameeldoorn (*Acacia giraffae*) and the Ana (*Acacia albida*).

(ii) *South.*—In the extreme south for a considerable distance semi-desert conditions prevail, consisting of an arid, stony plateau and plains supporting edible shrubs, and a sparse growth of grass; in heavy rainy seasons, however, nutritious grasses and flowers spring up everywhere. The river courses, as in the Namib, are clothed with trees. The most widely distributed plants are the milk bush and the Ganna bush (*Salsola aphylla*). The three thorn bush (*Rhigozum trichotomum*) and the Noonie bush (*Eoscia foetida*), the trees being the Kameeldoorn (*Acacia giraffae*) and the Koker-boom (*Aloe dichotoma*).

(iii) *Centre.*—From the southern portion northwards the veld assumes the characteristics of the Karroo until Rehoboth is reached, when it changes into a park-like grass country studded with large thorn trees, being especially well timbered along the water courses. From the mountainous portion of the Windhoek district northwards towards Omaruru, the country is covered with level bush with an undergrowth of very nutritious grass, the valleys and water courses being well timbered mostly with acacia trees, especially the Kameeldoorn (*Acacia giraffae*).

(iv) *North.*—Towards the north the bush becomes denser until it becomes fairly well timbered all over and is traversed in its most northern section by belts of open Mopane forests, and towards the Okawango it is covered by fertile tropical vegetation.

(v) *East.*—In the southern portion of the eastern section the vegetation is karroo bush, intermixed with grass, the valleys being covered with thorn bush, which changes towards the centre, where trees become more numerous, the dunes themselves are covered with thorn bush, large acacia trees, and good grass. From Rehoboth northwards the whole is well timbered and merges into thick tropical vegetation

5. **Rainfall and Climate.**—The rainfall varies from about an inch along the coastal belt to 6 inches in the south, 12 inches in the centre, and about 22 inches in the north.

The climate is hot and dry, but very healthy, except in the northern districts, where malaria is very prevalent during the autumn.

§ 3. Administration.

1. **Central Administration.**—(i) *Mandate.*—The administration of the country is vested in the Government of the Union of South Africa, under the following Mandate:—

THE MANDATE FOR SOUTH WEST AFRICA.

The Council of the League of Nations,

WHEREAS by Article 119 of the Treaty of Peace with Germany, signed at Versailles on 28th June, 1919, Germany renounced in favour of the Principal Allied and Associated Powers all her rights over her overseas possessions, including therein German South West Africa; and

WHEREAS the Principal Allied and Associated Powers agreed that, in accordance with Article 22, Part I (Covenant of the League of Nations) of the said Treaty, a Mandate should be conferred upon his Britannic Majesty to be exercised on his behalf by the Government of the Union of South Africa to administer the Territory aforementioned and have proposed that the Mandate should be formulated in the following terms; and

WHEREAS His Britannic Majesty, for and on behalf of the Government of the Union of South Africa, has agreed to accept the Mandate in respect of the said territory and has undertaken to exercise it on behalf of the League of Nations in accordance with the following provisions; and

WHEREAS, by the aforementioned Article 22, paragraph 8, it is provided that the degree of authority, control, or administration to be exercised by the Mandatory, not having been previously agreed upon by the members of the League, shall be explicitly defined by the Council of the League of Nations.

Confirming the said Mandate, defines its terms as follows:—

Article 1.

The territory over which a Mandate is conferred upon His Britannic Majesty for and on behalf of the Government of the Union of South Africa (hereinafter called the Mandatory) comprises the territory which formerly constituted the German Protectorate of South West Africa.

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* See Vegetation Map.

Article 2.

The Mandatory shall have full power of administration and legislation over the territory subject to the present Mandate as an integral portion of the Union of South Africa, and may apply the laws of the Union of South Africa to the territory, subject to such local modifications as circumstances may require.

The Mandatory shall promote to the utmost the material and moral well-being and the social progress of the inhabitants of the territory, subject to the present Mandate.

Article 3.

The Mandatory shall see that the slave trade is prohibited, and that no forced labour is permitted, except for essential public works and services, and then only for adequate remuneration.

The Mandatory shall also see that the traffic in arms and ammunition is controlled in accordance with principles analogous to those laid down in the Convention relating to the control of the arms traffic, signed on 10th September, 1919, or in any convention amending the same.

The supply of intoxicating spirits and beverages to the natives shall be prohibited.

Article 4.

The military training of the natives, otherwise than for purposes of internal police and the local defence of the territory, shall be prohibited. Furthermore, no military or naval bases shall be established or fortifications erected in the territory.

Article 5.

Subject to the provisions of any local law for the maintenance of public order and public morals, the Mandatory shall ensure in the territory freedom of conscience and the free exercise of all forms of worship, and shall allow all missionaries, nationals of any state, member of the League of Nations, to enter into, travel, and reside in the territory for the purpose of prosecuting their calling.

Article 6.

The Mandatory shall make to the Council of the League of Nations an annual report to the satisfaction of the Council, containing full information with regard to the territory, and indicating the measures taken to carry out the obligations assumed under Articles 2, 3, 4, and 5.

Article 7.

The consent of the Council of the League of Nations is required for any modifications of the terms of the present Mandate.

The Mandatory agrees that, if any dispute whatever should arise between the Mandatory and another Member of the League of Nations relating to the interpretation of the application of the provisions of the Mandate, such dispute, if it cannot be settled by negotiation, shall be submitted to the Permanent Court of International Justice, provided for by Article 14 of the Covenant of the League of Nations.

The present Declaration shall be deposited in the archives of the League of Nations. Certified copies shall be forwarded by the Secretary-General of the League of Nations to all Powers Signatories of the Treaty of Peace with Germany.

Made at Geneva, the 17th day of December, 1920.

(ii) *Principal Officers.*—The following is a list of the principal officers of the Administration in South West Africa. Judicial and police officers are shown in § 8 below :—

Administrator	The Hon. A. J. Werth.
Secretary for South West Africa	H. P. Smit.
Divisional Superintendent of Railways	A. H. Wallis.
Chief Clerk	F. P. Courtney Clarke, B.A., LL.B.
Native Commissioner and Inspecting Officer	H. W. Drew.
Accountant	W. A. Rennie.
Revenue Officer and Tax Assessor	R. Lefebvre.
Medical Officer to the Administration	Dr. L. Fourie, M.B., Ch.B., M.B.E.
Surveyor-General	A. G. Landsberg.
Inspector of Mines	L. G. Ray.
Director of Posts and Telegraphs	Lt.-Col. J. A. Venning, D.S.O.
Boring Engineer	J. Traas, M.C.
Director of Education	H. H. G. Kreft, B.A.
Registrar of Deeds	L. P. Borchers.
Senior Veterinary Officer	R. S. Garraway.
Manager of the Land and Agricultural Bank of South West Africa	J. T. Taylor.

2. **District Administration.**—The territory, exclusive of Ovamboland, is divided into seventeen magisterial districts, wherein the various magistrates exercise certain administrative as well as judicial functions. They are charged with the functions of receivers of revenue, and, excepting in the districts of Windhoek and Luderitz, with the control of district native affairs.

3. **Local Government.**—Town and district councils were established in 1909 by a decree of the Imperial Chancellor with powers which were very similar to those in the Union except that the Governor had power to order the councils to do or to refrain from doing anything he pleased. The district councils lapsed on the occupation of the country by the

Union Forces, but the town councils were allowed to continue in office until the end of 1918. Their powers were then taken away and exercised by the magistrates. This step became necessary as there was a tendency for the councils to become political in character. In July, 1920, a Proclamation re-establishing municipal councils was issued, under which the councillors were nominated by the Administrator for a period of one year and certain powers of intervention were reserved. In every case half the number of councillors appointed were Germans. In other respects the Proclamation followed Union lines, and a rating system was established in lieu of the Municipal Income Tax, which formed the chief feature of municipal finance under the German regime. This change gave rise to a little difficulty at the start, as the German portion of the council did not understand the new system. A Municipal Amendment Proclamation was promulgated in 1922, providing for the election of half of the members of municipal councils. The first elections took place in September, 1922. In January, 1925, a Proclamation (No. 2 of 1925) was issued under which it is competent for the Administrator to establish a Village Management Board in any village not being a municipality, and in any other area of residence of any community. Such Board, of which the magistrate of the district is *ex-officio* chairman and treasurer, shall consist of not less than two and not more than four members, appointed by the Administrator during pleasure from amongst the residents in the area for which it has been constituted, and shall possess certain powers of local government defined by the Proclamation.

Hospital Boards have been established at four centres—Windhoek, Luderitz, Grootfontein, and Keetmanshoop—at all of which hospitals have been opened. Assistance is given to these Boards on lines similar to those laid down in the Cape Hospital Ordinance of 1912, under the Hospitals and Charitable Institutions Proclamation, 1922, which provides for the election of Hospital Boards.

4. **Capital.**—Windhoek, with a population of 3,460 Europeans and approximately 4,000 natives, is the capital town, and occupies a central position in the territory. It stands at an elevation of 5,600 feet and is finely situated within an amphitheatre of hills. Besides the Government Buildings, the Administration owns a large number of substantial houses which are allotted to Government officials. There are other fine buildings in the town which give it an air of solidity and comfort. The population has increased so rapidly during the last two years that accommodation is hard to obtain and the water supply is becoming inadequate. As a business centre the place has proved itself to be sound.

There are three hospitals (two for Europeans and one for natives) as well as a maternity home. There are large schools with hostels attached for both the old and new population, and the Church of England has opened a school for girls. In the suburb of Klein Windhoek there are market gardens which provide the town with fruit and vegetables. The municipality has recently made great improvements in the streets of the town and in the Zoological Gardens.

Windhoek is distant by rail from Swakopmund 254 miles, from Luderitz 542 miles, from Cape Town 1,384 miles, and from Johannesburg 1,338 miles.

§ 4. Constitutional Development.

1. **Constitution.**—Under Union Act No. 49 of 1919 the exercise of the *Mandate* was vested in the Governor-General who, by Proclamation (Union) No. 1 of 1921, delegated his powers to the Administrator appointed by the Union Government. The Administrator therefore possessed power of legislation and controlled every form of governmental activity in the territory, with the exception of the railways, which in terms of Union Act No. 20 of 1922 are worked in conjunction with the Union Railways and Harbours under the Minister of Railways.

Recently, however, it was decided the time had come to confer a limited measure of self-government upon the inhabitants of South West Africa, and the constitution granted is embodied in Union Act No. 42 of 1925. This provides for the creation of an Executive Committee, an Advisory Council, and a Legislative Assembly.

The Act came into operation on 5th August, 1925, and by Proclamation No. 57, dated the 19th March, 1926, the Governor-General of the Union declared that the Executive Committee, Advisory Council, and Legislative Assembly should be constituted. The elections for the members of the Legislative Assembly took place on the 25th May following.

2. **Executive Committee.**—This body consists of five members, one of whom shall be the Administrator (who shall be Chairman) and the remaining four persons chosen by the Assembly from among its own members or otherwise at its first meeting after any genera

election. The election of members shall, whenever such an election is contested, be according to the principle of proportionate representation, each voter having one transferable vote.

All members other than the Administrator hold office for the duration of the Assembly and until their successors are chosen.

The Administrator in Executive Committee carries on the Administration of those matters in respect of which it is competent for the Assembly to make Ordinances.

All matters are determined by a majority of votes of the members present, and in case of equality the Administrator has a casting vote.

Three members of the Committee (of whom the Administrator or the person appointed by the Governor-General to act as Administrator or to be the Deputy-Administrator shall be one) constitutes a quorum at any meeting of the Committee.

The remuneration of members of the Committee, other than the Administrator, is determined by the Governor-General.

The four persons chosen as members of the first Executive Committee are: Messrs. D. W. F. E. Ballot, F. J. Jooste, F. W. Kegel, and A. Voigts.

3. **Advisory Council.**—This body consists of eight members, viz., the Administrator (who shall be Chairman), the other members of the Executive Committee, and three members appointed by the Administrator, subject to the approval of the Governor-General.

One member so appointed by the Administrator must be an official selected mainly on the ground of his thorough acquaintance, by reason of his official experience or otherwise, with the reasonable wants and wishes of the non-European races in the territory.

The Council meets at such times and places as may from time to time be determined by the Administrator, and four members forms a quorum.

The duties and functions of the Council are to advise the Administrator in regard to—

(*a*) those matters in respect of which the Assembly is not competent to make Ordinances, including matters of general policy and administration apart from routine matters of administration;

(*b*) his assent to an Ordinance passed by the Assembly or its reservation for the signification of the pleasure of the Governor-General; and

(*c*) any other matter upon which its advice may be requested by the Administrator.

Members of the Council hold their seats thereon for the duration of the Assembly and continue to hold their seats until after a general election of the Assembly a new Council can be constituted.

Every member of the Council, except the Administrator, receives such remuneration as the Governor-General may prescribe.

The members of the Advisory Council are Messrs. D. W. F. E. Ballot, F. J. Jooste, F. W. Kegel, A. Voigts, C. N. Menning, A. Schad, and M. Otzen. The last three mentioned are the members appointed by the Administrator.

4. **Legislative Assembly.**—The Assembly consists of eighteen members, twelve of whom are elected by the voters of the territory and six appointed by the Administrator, subject to the approval of the Governor-General.

The duration of the Assembly shall be three years from the date of its first meeting after each general election.

Any person who is for the time being enrolled as a voter and who is not subject to the disqualifications prescribed by the Act is eligible for election or for appointment as a nominated member. Any person shall be disqualified who—

(*a*) has at any time been convicted of a crime or offence for which he has been sentenced to death or to imprisonment without the option of a fine, unless he has received a grant of amnesty or a free pardon or unless the imprisonment has expired at least five years before the date of nomination or election;

(*b*) is an unrehabilitated insolvent;

(*c*) has been declared by a competent court to be of unsound mind;

(*d*) holds any office of profit under the Administration of the territory or of the Government of the Union;

(*e*) ceases for any other reason to be qualified to be enrolled as a voter.

There shall be a session of the Assembly at Windhoek at least once in every financial year, the interval between the last sitting in one session and the first sitting in the next session being not more than twelve months.

Every member of the Assembly must take an oath or affirmation of allegiance.

The Assembly must choose a chairman, who will have no deliberative vote, but only a casting vote in the event of equality of votes on any question to be determined by the Assembly.

The Administrator or any member of the Executive Committee who is not a member of the Assembly has the right to take part in the proceedings of the Assembly, but may not vote.

The presence of nine members of the Assembly is necessary to constitute a sitting thereof.

The official languages are English and Dutch, but any member may address the Assembly in the German language.

The remuneration of members of the Assembly is fixed by the Governor-General.

The first sitting of the first session of the Legislative Assembly took place at Windhoek on the 15th of June, 1926. The names of the persons who were declared duly elected* as members of this body, together with the names of the electoral divisions which they each represented, are given hereunder :—

Gibeon	C. J. F. Grobler, Esq.
Gobabis	F. J. Jooste, Esq.
Grootfontein	F. W. Kegel, Esq.
Keetmanshoop	B. J. Espach, Esq.
Kolmanskuppe	W. H. Fischer, Esq.
Luderitz	H. B. Husekorn, Esq.
Okahandja	A. Voigts, Esq.
Omaruru	C. F. T. Weslenfeld, Esq.
Swakopmund	R. R. R. Blank, Esq.
Warmbad	C. H. Oberholzer, Esq.
Windhoek Central	P. Müller, Esq.
Windhoek District	D. W. F. E. Ballot, Esq.

The following persons have been appointed to be the nominated members of the Legislative Assembly :—

I. J. J. Buys, Esq.	P. Guhr, Esq.
G. Curtis, Esq.	A. Stauch, Esq.
J. G. de Wet, Esq.	C. J. van Tonder, Esq.

5. **Reservations of Legislative Powers.**—The Assembly has power to legislate by Ordinance upon all matters except those which have been expressly reserved. The reservations are contained in sections 26, 27, and 28 of the Act, which read as follows :—

Section 26.—Except with the consent of the Governor-General previously obtained on any particular occasion and communicated to the Assembly by message from the Administrator, it shall not be competent for the Assembly to make an ordinance in relation to any subject falling within the following classes of matters, i.e. to say—

(*a*) native affairs or any matters specially affecting natives, including the imposition of taxation upon the persons, land, habitations, or earnings of natives. Whenever any Ordinance of the Assembly imposes taxation upon persons, lands, habitations, or incomes or earnings generally, natives and their lands, habitations, and earnings shall be exempt from its provisions ;

(*b*) mines, minerals, mineral oils, and precious stones, or the moneys derivable therefrom or payable to the Administration in respect of licences for prospecting or winning the same or as share of the produce thereof or any taxation in connexion therewith ;

(*c*) the acquisition, construction, management, regulation, control, and working of railways and harbours in the territory ; and the organization, discipline, and conditions of employment of and the payment of pensions, retiring allowances and financial benefits to persons in the employment of the Railway and Harbours Administration ;

(*d*) the organization of and discipline and conditions of employment of persons in the public service who are serving in the territory, and the payment of pensions, retiring allowances, and financial benefits to such persons ;

(*e*) the constitution and jurisdication of courts of justice, whether superior or inferior, and the practice or procedure to be observed therein ;

(*f*) the administration, management, and working of the postal, telegraph, and telephone services ;

(*g*) the establishment or control of any military organization in the territory ;

(*h*) the movements or operations of any unit of the South African Defence Forces within the territory ;

(*i*) the entry of immigrants into the territory or of other persons ;

(*j*) tariffs of customs and excise duties and the control and management of customs and excise ;

(*k*) currency and banking and the control of banking institutions.

* The elections were held on the 25th May preceding.

Section 27.—(i) Except with the consent of the Governor-General previously obtained on any particular occasion, and communicated to the Assembly by message from the Administrator, the Assembly shall not, until the expiration of a period of at least three years from the date of the first sitting of the first session of the Assembly, be competent to make ordinances in relation to any of the following subject-matters :—

(*a*) The establishment or control of any police force in the territory.

(*b*) Civil aviation.

(*c*) Primary or secondary education in schools supported or aided from the revenues of the territory.

(*d*) The establishment, management, or control of any land or agricultural bank in the territory.

(*e*) The allotment, sale, lease, or disposal of Government lands in the territory.

(ii) At any time after the expiry of the said period of three years, if power has not been so conferred by the Governor-General upon the Assembly to make Ordinances in relation to any particular subject-matter specified in sub-section (I), then the Governor-General may, on a recommendation made by the Assembly and embodied in a resolution for which it is certified by the Chairman thereof that not less than two-thirds of the members thereof voted, declare by proclamation in the *Gazette* and in the *Official Gazette* of the territory, the full competency of the Assembly to make Ordinances in respect of that subject-matter.

(iii) Save as is specially provided in this section, the provisions thereof shall remain in operation after the said period of three years.

Section 28.—It shall not be lawful for the Assembly—

(*a*) to originate or pass any Ordinance, Vote, or Resolution which has the effect of appropriating any part of the Territory Revenue Fund formed as hereinafter provided ; or

(*b*) to originate or pass any Ordinance, Vote, or Resolution imposing any tax, duty due, or charge or burden on the people,

unless such Ordinance, Vote, or Resolution has first been recommended to the Assembly by, written message of the Administrator during the session in which it is proposed.

Every Ordinance passed by the Assembly must be presented to the Administrator for his assent.

The Administrator may then—

(*a*) refer the Ordinance back to the Assembly, with such amendments as he may suggest for its consideration ;

(*b*) assent to the Ordinance ;

(*c*) reserve the Ordinance for the signification of the Governor-General.

In the last-mentioned event the Administrator must transmit the Ordinance, together with such explanatory observations as may be necessary, to the Governor-General, who may declare within six months after receipt thereof by him that he allows or disallows the Ordinance or that he reserves it for further consideration. An Ordinance so reserved shall have no force or effect unless and until the Governor-General within a further period of six months from the date of his reservation declares that he does not exercise his power of disallowance.

Copies of all Ordinances assented to and a return indicating the Ordinances which have been reserved for further consideration by the Governor-General or disallowed and the reasons for reservation or disallowance must be laid upon the Tables of both Houses of Parliament.

Unless a particular date is fixed, every Ordinance shall come into operation as from the date of its first publication in the *Gazette*.

Although not competent to make Ordinances in respect of the matters reserved by sections 26 and 27 of the Act the Assembly may, by resolution, recommend to the Governor-General or to the Administrator the issue of a proclamation enacting a law or the amending or repealing of any law relating to such matters.

As regards Finance, the Act provides for the formation of a fund known as the Territory Revenue Fund which may only be drawn upon under the authority of an Appropriation Ordinance passed by the Assembly and in pursuance of a warrant under the hand of the Administrator directed to an officer serving under the Administration of the territory ; provided that until such appropriation has been made and for a period not exceeding two months after the end of a financial year, the Administrator may withdraw from the Fund moneys to meet expenditure on services in respect of which there has been an appropriation up to the end of that financial year.

The annual estimates of expenditure for the territory shall be prepared by the Administrator in consultation with the Advisory Council, and thereafter submitted to the Assembly.

If the Assembly rejects or fails to pass—

(*a*) an Ordinance appropriating in any financial year moneys from the Territory Revenue Fund sufficient, in the opinion of the Administrator, to pay during that year the salaries and allowances of the Administrator, of the Judge of the High Court, and of officers serving under the Administration, and to carry on the public administration of the territory, and any other services which the Administrator certifies to be necessary in the interests of the territory or to meet any liabilities which have been incurred in or in respect of the territory or of any railway or harbour works therein; or

(*b*) an Ordinance imposing any tax to raise in any year revenue which the Administrator certifies to be, with other revenues, necessary for the purposes described in paragraph (*a*);

or though passing the Ordinance, passes it with amendments to which the Administrator personally is unable to agree, regard being had by him to the purposes aforesaid, the Administrator may transmit a full report in relation to the whole matter to the Governor-General and the Governor-General may, after consideration of that report and of any further report or recommendation on the matter, passed and transmitted by the Assembly by message, make a law, by proclamation under the powers reserved to the Governor-General under this Act, providing for such appropriation or such tax (as the case may be) as may, in the opinion of the Governor-General, be sufficient for the purposes mentioned in paragraph (*a*) or paragraph (*b*) of this section (as the case may be).

Section 44 of the Act contains the following important reservation:—

Section 44 (i).—Nothing in this Act contained shall be construed as in any manner abolishing, diminishing, or derogating from those full powers of administration and legislation over the territory as an integral portion of the Union which are conferred by the mandate hereinbefore recited and have been confirmed by the Treaty of Peace and South West Africa *Mandate Act*, 1919 (Act No. 49 of 1919), or as modifying any provision of that Act. Those full powers of administration and legislation are hereby expressly reserved to the Governor-General and may be exercised or delegated by him in accordance with that Act to the intent that by proclamation new laws may be made for the territory, existing proclamations may be repealed, amended, or modified, or any Ordinance made by the Assembly and in force under this Act may be repealed, amended, or modified. Every such proclamation of the Governor-General or of the Administrator shall, before it has the force of law in the territory, be published in the *Official Gazette* thereof.

(ii) A Proclamation of the Administrator or an Ordinance made by the Assembly shall, though promulgated, have effect in and for the territory so long and as far only as it is not repugnant to or inconsistent with a Proclamation of the Governor-General, or an Act of the Union Parliament, applicable to the territory.

6. **Franchise.**—(i) Every European male person who—

(*a*) has been resident in the territory for twelve months immediately prior to the date fixed under paragraph 3 of this Schedule for the commencement of the provisional list; and

(*b*) is twenty-one years of age or upwards at that date; and

(*c*) is a British subject,

as well as every male person who, under section *two* of Act No. 30 of 1924, became a British subject naturalized under Act No. 4 of 1910, shall be entitled to be registered as a voter unless in either case he is disentitled for any reason mentioned in paragraph 2 of this Schedule. But no person shall be entitled to be registered on more than one list or, if registered on more than one list, to vote in more than one electoral division.

(ii) No person shall be entitled to be so registered if he has been—

(*a*) convicted at any time of murder unless he has obtained a free pardon therefor;

(*b*) convicted at any time of any offence and sentenced to imprisonment without the option of a fine, which imprisonment has not expired at least three years before the date of the commencement of registration, unless he has obtained a free pardon for that offence.

For the purposes of this law the port and settlement of Walvis Bay is deemed to form part of the territory, but that part of the mandated territory east of the twenty-first degree of east longitude and known as the Caprivi Zipfel is excluded. Although actually a portion of the mandated territory this strip, on account of its geographical position, has been placed under the Administrator of the Bechuanaland Protectorate.

Section 45 of the Act provides as follows :—

Section 45.—After the expiration of a period of three years from the date of the first sitting of the first session of the Assembly, the Governor-General may, on a recommendation made by the Assembly and embodied in a resolution for which it is certified by the Chairman thereof that not less than two-thirds of the members thereof voted, repeal or alter any provision of this Act, except sections *twenty-six* and *forty-four* and this section; provided that the Governor-General shall not act upon such a recommendation unless the proposals contained therein have lain upon the Tables of both Houses of Parliament for a period of one month and during that period neither House has expressed its disapproval of the proposals.

§ 5. Population.

1. **General.**—The following table gives the final results of the census taken in the territory on 3rd May, 1921 :—

POPULATION—CENSUS OF 3rd MAY, 1921.

Race.	Male.	Female.	Total.
European*	11,242	8,190	19,432
Bantu	92,627	84,835	177,462
Other Coloured	15,394	15,451	30,845
TOTAL	119,263	108,476	227,739

2. **Population of Towns.**—According to the census of 1921 the population of the towns was as follows :—

	European.	Other.
Windhoek	3,460	4,399
Luderitz	1,003	1,014
Keetmanshoop	1,026	1,659
Swakopmund	1,078	694

3. **Births, Deaths, Marriages.**—The registration of births and deaths has become compulsory with the adoption in the Territory of Union Act No. 17 of 1923, with effect from 1st January, 1924. A Proclamation was issued during 1920 under which the celebration of marriages was brought into line with Union procedure.

The vital registration figures for the Territory between 1919 and 1924 are as follows :—

	Births. (Europeans.)	Deaths. (Europeans.)	Marriages.
1919	549	243	190 (Europeans).
1920	540	100	178 (Europeans).
1921	544	121	513 (All races).
1922	537	84	448 (All races).
1923	428	109	164 (Europeans). 297 (Other).
1924	640	141	205 (Europeans). 285 (Other).

* Preliminary unaudited results of European Population Census taken on the 4th May, 1926 :— Males, 13,708; Females, 10,407; Total persons, 24,115.

The following tables show under different classifications the number of vital events registered in the years 1924 and 1925 :—

(i) **SUMMARY OF VITAL REGISTRATIONS—EUROPEANS—YEARS 1924 AND 1925.**

Heading.	1924.			1925.		
	Urban.	Rural.	Total.	Urban.	Rural.	Total.
Births—						
Male.....	151	196	347	128	215	343
Female.....	119	174	293	125	226	351
TOTAL.....	270	370	640	253	441	694
Deaths—						
Male.....	38	54	92	42	77	119
Female.....	30	19	49	25	51	76
TOTAL.....	68	73	141	67	128	195
Natural Increase—						
Male.....	113	142	255	86	138	224
Female.....	89	155	244	100	175	275
TOTAL.....	202	297	499	186	313	499
Infantile Deaths—						
Male.....	12	13	25	12	9	21
Female.....	3	5	8	6	11	17
TOTAL.....	15	18	33	18	20	38
Marriages.....	—	—	205	—	—	207

(ii) **VITAL REGISTRATIONS—RATES PER 1,000—EUROPEANS—YEARS 1924 AND 1925.**

Year.	Mean Estimated Population.	Births.	Deaths.			Infantile Mortality.			Marriages.
			M.	F.	T.	M.	F.	T.	
1924	22,388	28 59	7·19	5·11	6·30	72·05	27·30	51·56	9·16
1925	23,325	29·75	8·95	7·58	8·36	61·22	48·43	54·76	8·87

(iii) **DEATHS ACCORDING TO AGE AND MARITAL CONDITION—EUROPEANS—YEARS 1924 AND 1925.**

Age Groups in Years.	1924.			1925.		
	Never Married.	Married.	Widowed and Divorced.	Never Married.	Married.	Widowed and Divorced.
			(*a*) MALE.			
Under 15.....	32	—	—	36	—	—
15–19.....	3	—	—	5	—	—
20–24.....	4	—	—	6	—	—
25–29.....	3	2	—	3	2	—
30–34.....	—	1	—	1	5	—
35–39.....	2	6	—	5	2	1
40–44.....	4	5	—	2	10	—
45–49.....	4	6	—	—	5	—
50–54.....	—	4	—	3	7	—
55–59.....	1	4	—	1	3	—
60–64*.....	3	—	—	2	3	—
65–69.....	—	1	—	—	5	—
70–74.....	—	1	2	—	3	—
75 and over....	—	2	1	1	2	—
ALL AGES...	56	32	3	65	47	1
			(*b*) FEMALE.			
Under 15.....	15	—	—	35	—	—
15–19.....	1	—	—	2	1	—
20–24.....	1	1	—	2	5	—
25–29.....	1	1	—	—	2	—
30–34.....	—	6	—	—	2	1
35–39.....	—	5	—	1	4	—
40–44.....	—	2	—	—	2	—
45–49.....	—	3	—	—	2	—
50–54.....	—	2	—	—	—	—
55–59.....	—	2	—	1	4	—
60–64.....	—	—	—	1	4	2
65–69.....	—	1	—	—	1	1
70–74.....	—	2	3	—	—	2
75 and over.....	—	—	3	—	—	1
ALL AGES...	18	25	6	42	27	7

* Also one male in 1924 and one in 1925 of unspecified marital condition.

(iv) CAUSES OF DEATHS (ABRIDGED INTERNATIONAL LIST)—EUROPEANS—YEARS 1924 AND 1925.

Cause of Death.	1924.		1925.	
	Certified.	Uncertified.	Certified.	Uncertified.
Enteric Fever	1	—	11	—
Typhus	—	—	—	—
Malaria	3	3	5	25
Smallpox	—	—	—	—
Measles	—	—	—	—
Scarlet Fever	—	—	—	1
Whooping Cough	—	—	1	—
Diphtheria	—	—	1	—
Influenza	7	2	5	3
Plague	—	—	—	—
Leprosy	—	—	—	—
Pulmonary Tuberculosis	2	—	1	1
Tuberculous Meningitis	—	—	—	—
Tuberculosis of Bones, Joints, and Glands	—	—	1	—
Other Tubercular Diseases	1	—	—	—
Syphilis (all forms)	—	—	1	—
Cancer (all forms)	3	1	7	3
Meningitis	6	1	2	—
Cerebral Haemorrhage and Softening	1	1	1	1
Cardiac Diseases	8	—	12	2
Bronchitis	—	1	2	—
Pneumonia (all forms)	9	11	7	8
Miners' Phthisis (Silicosis) without Tuberculosis	—	—	1	—
Miners' Phthisis (Silicosis) with Tuberculosis	—	—	—	—
Other Respiratory Diseases	3	—	2	—
Ulcer of Stomach and Duodenum	1	—	—	—
Diarrhœa and Enteritis (under two years)	6	1	7	1
Appendicitis	2	—	3	—
Cirrhosis of Liver	—	—	—	—
Acute and Chronic Nephritis	2	—	7	—
Puerperal Sepsis	—	1	2	—
Other Accidents and Diseases of Pregnancy and Parturition	2	1	—	1
Congenital Debility, Malformation, and Premature Birth	10	5	10	4
Suicides	5	—	8	—
Other Violent Deaths	5	—	7	2
Other Defined Diseases, and Unspecified	25	11	22	17
TOTAL DEATHS	102	39	126	69

(v) PERCENTAGES OF CERTIFIED AND UNCERTIFIED DEATHS—EUROPEANS—YEARS 1924 AND 1925.

Area.	Male.		Female.		Total.	
	Certified.	Uncertified.	Certified.	Uncertified.	Certified.	Uncertified.
1924.						
Urban	97·37	2·63	96·67	3·33	97·06	2·94
Rural	59·26	40·74	21·05	78·95	49·32	50·68
ALL AREAS	75·00	25·00	67·35	32·65	72·34	27·66
1925.						
Urban	92·86	7·14	96·00	4·00	94·03	5·97
Rural	54·55	45·45	41·18	58·82	49·22	50·78
ALL AREAS	68·07	31·93	59·21	40·79	64·62	35·38

(vi) MARRIAGES REGISTERED—ALL RACES—YEARS 1924 AND 1925.

Year.	European.	Non-European.	Total.	Mixed Marriages included with Non-European.
	Number.	Number.	Number.	Number.
1924	205	285	490	9
1925	207	342	549	5

MARRIAGES IN EACH DENOMINATION—EUROPEANS—1924 AND 1925.

Religious Denominations.	1924.		1925.	
	Number.	Per Cent.	Number.	Per Cent.
Dutch Reformed	32	15·61	29	14·01
Church of England	8	3·90	2	·97
Wesleyan	3	1·46	7	3·38
Roman Catholic	16	7·80	7	3·38
All other Christian Denominations	37	18·05	45	21·74
Jewish	2	·98	—	—
TOTAL	98	47·80	90	43·48
By Magistrates	107	52·20	117	56·52
TOTAL MARRIAGES	205	100·00	207	100·00

(vii) RELATIVE CONJUGAL CONDITIONS OF PERSONS MARRIED—YEARS 1924 AND 1925.

Conjugal Condition.		1924.		1925.	
		European.	Non-European.	European.	Non-European.
Bachelors to	Spinsters	163	188	157	229
	Widows	10	20	8	7
	Divorcees	9	—	17	—
Widowers to	Spinsters	10	24	13	27
	Widows	4	8	1	7
	Divorcees	—	—	—	—
Divorcees to	Spinsters	3	—	7	—
	Widows	4	—	2	—
	Divorcees	2	—	2	1
Previously married *de facto*		—	45	—	71
TOTAL		205	285	207	342

(viii) AGE AT MARRIAGE OF EUROPEANS—NUMBERS AND PROPORTION PER CENT—YEARS 1924 AND 1925.

Ages (Years).	1924.				1925.			
	Bridegrooms.		Brides.		Bridegrooms.		Brides.	
	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
13	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	—	—
15	—	—	2	·98	—	—	—	—
16	—	—	6	2·93	—	—	8	3·87
17	—	—	8	3·90	—	—	9	4·35
18	—	—	17	8·29	—	—	13	6·28
19	—	—	20	9·76	1	·48	16	7·73
20	2	·98	21	10·24	1	·48	13	6·28
21–24	34	16·59	53	25·85	26	12·56	56	27·05
25–29	61	29·75	34	16·59	66	31·89	39	18·84
30–34	42	20·49	17	8·29	31	14·98	20	9·66
35–39	31	15 12	15	7·32	30	14·49	19	9 18
40–44	21	10·24	9	4·39	30	14·49	11	5·31
45–49	7	3·41	3	1·46	15	7·25	3	1·45
50–54	4	1·95	—	—	7	3·38	—	—
55–59	2	·98	—	—	—	—	—	—
60–64	—	—	—	—	—	—	—	—
65–69	—	—	—	—	—	—	—	—
70–74	1	·49	—	—	—	—	—	—
75–79	—	—	—	—	—	—	—	—
80 +	—	—	—	—	—	—	—	—
Unspecified	—	—	—	—	—	—	—	—
TOTAL	205	100·00	205	100·00	207	100·00	207	100·00

The following native customs prevail in regard to marriages, births, and deaths :—

(i) *Marriages.*—Among the Damara and Herero races an intending bridegroom reports to his father that he contemplates marrying. The father, if he approves, sends presents of food to the girl's family. If this offer of friendship is accepted, the groom's father proceeds with other members of his family to the girl's house, and the members of both families hold a council on the proposed alliance. If the meeting decides favourably upon the marriage, and if the headman of the tribe consents, stock is slaughtered by the groom's family, the number of animals depending on the extent of their possessions, and a feast is held. This marriage feast consummates the union. It is, by these customs, a condition precedent to marriage that the husband must pay the wife's family a number of stock, regulated by the husband's state of affluence, on the birth of each child.

(ii) *Births.*—When a female member of the Damara or Herero race is confined, the women of her own and her husband's family congregate at her hut and remain there until the child is born. When this takes place the headman of the tribe and the elders of both families are informed of the occurrence, and also of the sex of the child. The father then slaughters a goat or a calf for the women in attendance, and later on one for his wife.

(iii) *Deaths.*—In the case of a dangerous illness among Damaras or Hereros the sick person's relations and friends are informed and they visit the sick bed. Should death take place, the female relations assemble at the hut and commence a dismal wail. Other women join them even though they have never known the deceased, and the wail is kept up for four or five hours. It usually happens that before the wail is finished a hundred or more native women will be taking part; no men participate. When the body has been placed in the coffin, which is made by the male relations, the natives form up, relations immediately behind the cortege, and march slowly to the burial place. A few sentences are recited by a male relative and then a few chanted by the mourners, and this is kept up until the procession has reached the hut on the return journey. At the graveside a cup of water is produced, and every person dips his or her fingers into the water and sprinkles some on the grave, simultaneously uttering the following words : " I am your brother or sister —I have come to give you greetings, and to bid you good-bye in your grave. There you remain in your resting-place. I return home." The headmen and councillors then decide who is the next-of-kin and the property is handed to him in their presence. In the event of a married woman dying, the parents, and not the husband, get her belongings.

4. **Naturalization.**—The Union Act No. 30 of 1924 made the *Naturalization of Aliens Act* of 1910 effective in the Territory, which for the purposes of the Act is considered to form part of the Union. The *South West Africa Naturalization of Aliens Act*, No. 30 of 1924, provides that every adult European who, being a subject of any of the late enemy powers, was on the 1st January, 1924, or at any time thereafter before the commencement of the Act (15th September, 1924), domiciled in the Territory, shall, at the expiry of six months after the commencement of the Act, be deemed to have become a naturalized British subject, unless within that period he has signed a declaration that he is not desirous of being naturalized.

The final lists of persons naturalized in this way have been published and show that out of a total of 3,489 persons who were eligible, 3,228 accepted British citizenship. It is laid down in the Act that no person signing a declaration against his naturalization under the Act will surrender any right or privilege which he may have had as an alien prior to such declaration.

§ 6. Public Health and Hospitals.

1. **Medical Services.**—The health and medical services, for which the Administration is responsible, are performed by one whole-time medical officer, stationed at Windhoek, and by part-time district surgeons, whose appointments are made on the same basis as in the Union of South Africa.

The Union *Public Health Act* (No. 36 of 1919), with certain amendments to meet local circumstances, was extended to South West Africa by Proclamation No. 36 of 1920. Local authorities are responsible for the sanitary and other measures necessary to safeguard and promote the public health in their respective areas, and in certain matters receive financial assistance on a well-defined basis from the Administration. Where a local authority fails or refuses to carry out its duties in this respect, the Administration may step in and carry out the necessary measures at the expense of such local authority.

There are urban local authorities at Luderitz, Keetmanshoop, Windhoek, Okahandja, Karibib, Swakopmund, and Omaruru and rural local authorities at Mariental, Gibeon, Walvis Bay, and Grootfontein. In the remaining districts the magistrate is the rural local authority.

The port health work is performed by the respective district surgeons at Luderitz and Swakopmund. Quarantine accommodation and facilities for dealing with infection on board vessels are not available at the ports at present, but the provision of these is under contemplation.

2. **Water Supply and Sanitation.**—The population is almost entirely dependent on the underground water for its water supply, which is generally obtained either from springs or from wells and boreholes. At Luderitz water from these sources is not available at present and supplies are obtained by the distillation of sea-water. All the urban areas have municipal supplies. The water is of good quality, but is liable to a considerable seasonal variation in quantity, according to the rainfall. In no locality is the supply adequate for an efficient water-borne sewerage system. Instances of pollution of water supply are seldom met with.

Increased attention is being directed by local authorities towards bettering the sanitary conditions among both the European and native communities. Not only has considerable improvement been effected in the conservancy system of refuse disposal, which is in operation throughout the territory, but more attention is also being paid to the prevention of nuisances and to the supervision of the food supplies, etc. The want of skilled supervision is seriously felt, but it is confidently expected that, as times improve, local authorities will avail themselves of the facilities for the appointment of certificated inspectors afforded under the provisions of the *Public Health Act.*

3. **General Health Conditions.**—The climate is healthy. Malaria is endemic in portions of the northern and north-western districts and along the river valleys of Namaqualand. It is generally of a mild type and epidemic outbreaks occur only during exceptionally wet seasons, usually at intervals of five or six years, when isolated cases of blackwater fever may also be met with. Long residence in the interior is liable to lead to functional disturbances of the nervous and circulatory systems, which, however, can be obviated by periodical visits to the bracing climate of the coast. Acute rheumatism, as well as acute respiratory and other conditions, are infrequent. Affections of the eye and ear are rarely met with. Sunstroke and snake-bite are of uncommon occurrence.

4. **Remarks on Prevalence of certain Diseases.**—(i) *Acute Polyomyelitis* has not been met with, either during the German regime or since the occupation by the Union forces.

(ii) *Anthrax* is not infrequently met with amongst natives owing to the practice of eating the meat of animals dying from disease. The native, however, appears to have acquired a considerable degree of immunity against anthrax, as it is remarkable what a small percentage of those who eat infected meat subsequently contract the disease. The lesions in the majority of cases remain localized and circumscribed and, as the disease is well known to the natives, are either cauterized or excised. In 1879, known as *Ojondimba* or *the year of the anthraxpox*, there was an extensive outbreak among the Herero and many natives died. Since 1917 only four cases have been dealt with locally, and all recovered. Two fatal cases among the natives were reported from Gobabis in 1921, and during 1922 nine cases, without any deaths, were reported from the Okambahe Reserve.

(iii) *Beri-Beri.*—Localized outbreaks are stated to have occurred during the Herero war, but the disease is seldom met with nowadays.

(iv) *Blackwater Fever* is of infrequent occurrence. Isolated cases occur from time to time in the Districts of Otjiwarongo, Outjo, Grootfontein, and Gobabis. During the year 1921 there were six cases with three deaths in the Grootfontein District, but none have been met with since.

(v) *Cholera.*—There is no record of the occurrence of this disease in South West Africa.

(vi) *Diphtheria* is endemic, but has never been very prevalent. Serious outbreaks are rare. Of seventeen cases notified during 1921, the diagnosis was doubtful in two, while twelve cases, with two deaths, occurred in connection with a small school outbreak at Omaruru, the disease only having been recognized after the sudden death of a pupil who had not received medical attention. During the year 1922 three cases were notified and there were no deaths.

(vii) *Dysentery.*—The baccillary form of dysentery was widely prevalent during the German regime and usually occurred in early summer and towards the end of the rainy season. During the Herero and Hottentot wars the disease took a considerable toll among the troops and prisoners of war, and among infants and young children. Since 1916 there has been a steady decrease in its prevalence and in recent years only a few sporadic cases have been dealt with.

(viii) *Enteric Fever.*—According to Missionary Irle, "Die Herero," typhoid fever was unknown prior to the year 1898. During the Herero war the disease became widely disseminated throughout the country and was accompanied by a considerable mortality. Subsequently, annual epidemic outbreaks occurred in the urban areas generally towards the end of the rainy season. Owing to the general insanitary conditions, infection was usually spread by flies. During recent years, there have been no serious outbreaks. During the year 1921 thirteen cases were notified, namely two from Windhoek and eleven from Kolmanskop (Luderitz District), while in 1922 fourteen sporadic cases, with three deaths, were notified. In 1923, localized outbreaks occurred at Tsumeb and Warmbad.

(ix) *Framboesia.*—The existence of this disease among the Hottentots in the south was established from specimens sent to the Institut für Schiffs und Tropen Hygiene in Hamburg. It is of uncommon occurrence.

(x) *Epidemic Cerebro-spinal Meningitis.*—Only two cases have been met with. Both occurred in Ovambo labourers in 1917 and ran a very acute and rapidly fatal course.

(xi) *Influenza.*—An extensive epidemic, affecting a large percentage of both European and native communities, occurred in July and August, 1907. The disease was of a mild character among Europeans, but caused a considerable mortality among the natives. Between the years 1907 and 1918 there was a certain prevalence generally during the winter, and this seasonal incidence is believed to have been the cause of the frequency of respiratory disease among the natives during this period. During the pandemic of 1918, infection was introduced from the Union in the month of October and the disease spread over the whole territory with alarming rapidity. All sections of the population were affected, and in some localities the mortality was very high. With the exception of an epidemic of a mild type among the natives of Ovamboland, the year 1919 was free from influenza. A widespread prevalence also of a mild character and mainly affecting the native population occurred in October and November, 1920. In July, 1921, there was a further extensive recrudescence, attended by a very considerable mortality among natives in some localities, while in 1922 the disease was prevalent towards the end of the year.

The total number of deaths from influenza from the 7th October, 1918, to the 31st December, 1922, was as follows:—

	Europeans.	*Native.*
1918	416	2,338
1919	—	—
1920	—	—
1921	21	307
1922	3	30

(xii) *Leprosy.*—The existence of leprosy in South West Africa was first discovered when a native from Barotseland sought advice at the Windhoek Native Hospital on the 26th January, 1918. He had been suffering from the disease shortly after his arrival in the country about ten years previously. On the 27th June, 1918, another patient, a Hottentot male, who had been treated for syphilis for years, was admitted with leprosy to the same hospital and died from nephritis three weeks later. He was a native of this country and had lived in the Gibeon and Keetmanshoop Districts all his life. At about the same time a case, of which the particulars are not available, was reported from Outjo. This patient also died before his removal to an institution could be effected. Steps are being taken to investigate the prevalence of the disease among the natives inhabiting the banks of the Okavango River, among whom it is said to exist. Lepers are removed to institutions in the Union as soon as they are certified.

(xiii) *Madura Foot.*—Only four cases of this disease have been recorded, viz., two in 1910 and two in 1918. In each instance the patient was a Hottentot.

(xiv) *Malaria* is endemic over the greater portion of South West Africa. It is more prevalent in the north and east than in the south-west. In the south it is common along the banks of the Fish River, and is also met with along the Auob and Nosob Rivers. A few sporadic cases have also been reported from isolated farms having storage dams in close proximity to the homestead in the Keetmanshoop District. In the west the disease is met with only after seasons with an exceptionally heavy rainfall, and then only along the Kuisib River and the Swakop and other river valleys. One primary infection was recorded in Walvis Bay in May, 1921, in a patient who had not previously suffered from malaria, and had not been out of the place for nine months.

While the disease is common in the north and north-east, a special prevalence is met with only in years with an abnormally heavy rainfall, usually at intervals of five or six years. The District Surgeon at Grootfontein in a report on the subject writes:—

> The malaria may better be called seasonal, lasting from February to May inclusive (that is, towards the end of and immediately after the rainy season), and during these months small epidemic outbreaks may appear in schools, etc., where numerous persons live together without sufficient protection. There are no areas as far as I know where it is epidemic, although cases of relapse may occur throughout the year. There are two prevailing types, namely the *Irregular Remittent* and the *Simple Tertian*. In my experience the *Irregular Remittent* is the more frequently met with. The *Simple Tertian* is not so common as the *Remittent* and closely resembles *typical benign Tertian.*

Under favourable conditions the disease is often attended by a considerable mortality among natives. In the years 1909 and 1917, large numbers of Bushmen died from malaria along the north-eastern and eastern borders of the territory. There would appear to have been an epidemic prevalence of the disease in the years 1857 and 1892, known as *Ojotjindjumba* or *year of the malaria* by the Herero. According to Missionary Irle, there was a similar prevalence in 1874, when "all the inhabitants were down with it."

(xv) *Malta Fever.*—The existence of this disease in South West Africa was first established by the Institut für Schiffs und Tropen Hygiene in Hamburg, in October, 1908, in a patient who had contracted it in the Windhoek District. Though it is more prevalent in the small stock-farming districts of the south than in the north, sporadic cases have since been reported from all the districts of the interior, including Ovamboland. The largest number of cases recorded during any one year is fifteen. In 1921 four were notified, all from the Grootfontein District, and in 1922, one case from Tsumeb and one from Keetmanshoop.

(xvi) *Measles* is said to have existed among the native population prior to the German occupation, but there is no record of any serious epidemic. Localized outbreaks occurred from time to time during the German regime. In 1918 a widespread epidemic of mild type prevailed among the natives, and since then sporadic cases have occurred in various localities.

(xvii) *Pellagra* and *Plague* are unknown in South West Africa.

(xviii) *Relapsing Fever.*—During the year 1922, two cases were reported from Tsumeb.

(xix) *Scarlet Fever* is stated never to have been prevalent among the natives of this country, nor do the natives appear to have been affected to any extent by any of the local outbreaks, including an extensive epidemic among school children in Windhoek in 1918 and 1919. Seven sporadic cases were notified during each of the years 1921 and 1922.

(xx) *Scurvy.*—During the Herero war scurvy frequently occurred among the troops and prisoners of war and was responsible for over 50 per cent. of the high mortality among the latter. Some idea of its ravages among the prisoners of war may be obtained from the fact that of 2,000 Witbooi prisoners who were placed on Shark Island in September, 1906, 840 had died from scurvy within a period of four months. The disease was still prevalent when the country was occupied by the Union forces, but owing to the general improvement in the condition of the natives and the steps taken by the Chamber of Mines and other large employers of labour at the instance of the Administration, it is of infrequent occurrence now.

(xxi) *Sleeping Sickness* is unknown. The tsetse fly is not found in the territory.

(xxii) *Smallpox.*—It is stated that smallpox was unknown to the Herero until the year 1864, known among the Herero as *Ojojtikoroha* or *year of the pox*, when it was introduced into Hereroland by the Nama. Large numbers of Herero and Nama died from the disease. There is no record of any other epidemic outbreaks in this country prior to the German occupation. In 1897 and 1898, there was an epidemic prevalence with a considerable mortality among the Hereros and Damaras in the north-western portion of Damaraland and in the Kaokoveld. *Amaas* or *Kaffirpox* is said to be endemic among the Hottentots in the south, but up to the present only chicken-pox has been identified among them.

(xxiii) *Tuberculosis.*—Tuberculosis was unknown to the natives of South West Africa, with the exception of the Hottentots, up to the beginning of the present century, but a rapid and widespread dissemination took place during and subsequent to the Herero war. It is met with mainly among the natives living under the artificial conditions in the urban locations and is not prevalent among those resident on farms and reserves in the rural areas. The population of Ovamboland and of the Okavango and Kalahari regions is practically free from it. All the local tribes, especially the Ovambo and Bushmen, when removed from their natural surroundings, are very susceptible to pulmonary affections and a considerable proportion of those who have suffered from bronchitis, pneumonia, etc., subsequently succumb to tuberculosis.

Pulmonary tuberculosis is the form usually met with. Abdominal joint and other lesions are comparatively rare. The disease runs a very rapid and acute course and treatment is of very little, if any, avail. As the vast majority of natives suffering from acute respiratory and other diseases are treated in the various native hospitals, it has been possible not only to minimize to some extent the risk of infection of such patients by ensuring a complete restoration of health before discharge from hospital, but also to prevent to a considerable degree the spread of the infection by comsumptive persons. On the other hand, the Luderitz Chamber of Mines is devoting special attention to the feeding, clothing, etc., of the native labourers employed on the diamond mines and is systematically carrying out prophylactic inoculation with Lister's pneumococcal vaccine.

Coincident with the improvement in the general health conditions of the native population during recent years, there has been a steady diminution in the incidence of tuberculosis among them. There is no marked prevalence of the disease among Europeans. Abdominal tuberculosis affecting infants and young children is very rare.

(xxiv) *Typhus Fever.*—There is no record of the occurrence of typhus fever in the territory.

(xxv) *Venereal Disease.*—Syphilis is met with among all native races of the territory, with the exception of the Bushmen. While it has been in existence for a long period among the Hottentots, it was unkown to the Herero and other races in the north until comparatively recent times. It is more prevalent in the urban locations than in the rural areas. Two factors contributed largely to the rapid and extensive dissemination of the disease

since the German occupation, viz., the Herero war and the compulsory periodical examination of natives for venereal disease. The native naturally did not like these examinations and tried every means of evading them, with the result that there was not only a constant migration of infected persons from the urban areas, but also a greater inclination to rely entirely upon the native method of treatment. Among the Herero and other Bantu races the majority of cases coming under treatment are suffering from either primary or secondary syphilis, while among the Hottentots the tertiary and congenital forms are principally met with.

Accurate statistics as to the prevalence of the disease are not available. The Administration provides free treatment by district surgeons for cases among the poor of all races, and in addition, facilities for free treatment and maintenance of native patients exist in connection with all the State-owned native hospitals. At Grootfontein, a compound for dealing with venereal disease among the natives was established in 1921. On the Okavango, remedies are distributed through the missions and the medical orderly stationed at Kuring Kuru, while in Ovamboland the medical officer attached to the Finnish Mission at Onipa has been appointed district surgeon and supplied with necessary drugs for the treatment of malaria and venereal disease. Recent reports show that syphilis is not becoming more prevalent, and in the case of Keetmanshoop, Windhoek, and Grootfontein, a definite decrease in its prevalence is reported.

(xxvi) *Disease due to Intestinal and other Parasites.*—Cestode infections are common and in man confined to *Taenia Saginata*, which has a very wide distribution in South West Africa. *Taenia Solium* is rarely met with. Only one case of *Hydatid disease* has been recorded up to the present. *Bilharzisois* is not common. Of the few recorded cases, in only one could infection be traced to this territory. *Elephantiasis* is not common and only two cases have come under observation. In each case the patient was a Herero. Parasitic skin affections are seldom seen.

5. **Registration of Medical Practitioners, Dentists, and Chemists and Druggists.**—The following registrations have been effected under Proclamation No. 3 of 1920 during the period ending 31st December, 1924 :—Medical practitioners, 31 ; dentists, 10 ; and chemists and druggists, 8.

6. **Mentally Disordered and Defective Persons.**—There are no institutions for the reception of mentally disordered or defective persons, but Union Act No. 38 of 1916 makes provision for the removal of mental patients as soon as they are certified to institutions in the Union. Native patients who are not a danger to themselves or to others are handed over to the care and control of their relatives. The number of patients removed to institutions in the Union is as follows :—

	1920.	1921.	1922.	1923.	1924.
European.....	1	2	2	5	2
Native.....	—	1	1	1	1

7. **Hospitals.**—(i) *State-aided Hospitals.*—In March, 1922, a Proclamation (No. 5 of 1922), based on the *Hospital and Charitable Institution Ordinance* of the Cape Province, was promulgated. Under its provisions every magisterial district in which there is one or more State-aided hospitals is constituted a hospital district, and for the management of the institutions in every such district a Board consisting of six or twelve members is required to be appointed. One-third of the members is appointed by the district council and municipality, one-third by the contributors (a contributor being a person who subscribes, collects, or raises by any means not less than £1 per annum or who subscribes not less than £20 in one donation towards the funds of the Board), one-sixth by the honorary visiting medical staff, and one-sixth by the Administrator.

The Administrator is empowered by notice in the *Gazette* to establish a new hospital district in any magisterial district in which there is no State-aided hospital, on presentation of a petition signed by twenty-five registered property owners in the proposed district, after having consulted the district council and the council of every municipality in the proposed district. After the establishment of a new hospital district, a board is appointed or elected in the same manner as in a magisterial district provided with an existing institution.

For maintenance purposes a Board receives the following subsidy from the Administration, viz., 30s. for every £1 received as collections, contributions, or donations ; £1 for every £1 of the value of all devises or bequests, but not exceeding £500 in respect of the estate of a single testator ; and £1 for every £1 received as fees from patients.

If in any year there is a deficit and the Administrator is satisfied that the Board has reasonably endeavoured to collect voluntary contributions from the public and to recover fees from patients, and that, having regard to the circumstances of the district and the class of patients mostly furnished with relief by the Board, a reasonable amount has been received by the Board from such sources of revenue, he may authorize such deficit to be halved between the Administration and the local authorities in the district, but where there is only one local authority in a district, a sum not exceeding one-third of such deficit shall be payable by it. A hospital board may establish hospitals, dispensaries, maternity

homes, convalescent homes, and other kindred institutions, and may obtain a loan from the Administration for the purpose of acquiring land, erecting buildings, or effecting improvements of a permanent nature, the Administration paying one-half of the interest and sinking fund of any such loan.

The following districts in which there were existing State-aided institutions were constituted hospital districts under the Proclamation, viz., Grootfontein, Windhoek, and Luderitz, and a new hospital district was established at Keetmanshoop.

While the hospital boards are required to furnish relief to all sections of the community, both European and native, accommodation for natives is provided at Luderitz only, as the requirements of the latter in the other hospital districts are met by the existing Government Native Hospital.

(ii) *Mission and Other Hospitals.*—A hospital, with accommodation for both Europeans and natives, is maintained by the Roman Catholic Mission at Swakopmund and at Gobabis, and for Europeans only at Windhoek.

In addition to the above, there is a maternity home (Elizabethhaus), established by a charitable organization in Germany for the benefit of the women in South West Africa, in Windhoek, and hospitals for the treatment of their European and native employees are provided by the various mining concerns at Tsumeb and at Charlottental, Kolmanskop, and Pomona, in the Luderitz District.

(iii) *Medical Care of Natives.*—Four State-owned native hospitals are directly controlled and maintained by the Administration at Windhoek, Keetmanshoop, Karibib, and Omaruru. The number of beds in the various native hospitals is as follows:—Windhoek, 75; Keetmanshoop, 20; Karibib, 12; and Omaruru, 8. With the exception of a small revenue from patients' fees, the whole cost of maintenance of these institutions is borne by the Administration.

Apart from the facilities for the treatment offered by the State-owned native hospitals, the terms of appointment of district surgeons provide for free medical attendance of indigent natives and, in districts in which there are no such institutions, patients of this description requiring hospital treatment are either admitted into the local hospital, if any, or transferred elsewhere at the expense of the State. The South African Railways and the mining industry provide free medical treatment for their native employees. Arsenical and mercurial preparations and iodide of potassium for the treatment of syphilis and quinine for the treatment of malaria are supplied free of charge to district surgeons for the treatment of patients dealt with by them in their official capacity.

A small dispensary for the distribution to natives of quinine and certain stock medicines through a trained European medical orderly is attached to the office of the Resident Commissioner at Ondonga, Ovamboland, and to that of the Native Affairs Officer at Kuring Kuru on the Okavango River. Medicines for distribution to natives are also supplied periodically free of charge to the Finnish Mission, Onipa, Ovamboland, to the Roman Catholic Missions at Nyangana, and Andara on the Okavango River, and at Heirachabis and Gabis in the Warmbad District, and when required, to magistrates and other branches of the Administration.

§ 7. Education.

1. **General.**—Education in South West Africa is controlled according to the provisions of the *Education Proclamation*, 1921, which came into force on the 1st January, 1922. It is an adaptation of the *Consolidated Education Ordinance* of the Cape Province, and provides for the compulsory attendance of all European children between the ages of 7 and 15 (inclusive). The salary scales for teachers are modifications of the Transvaal scales.

Negotiations with the German population ended in November, 1921, when a Concordat was arrived at. As a result of this, thirteen out of seventeen elementary schools were transferred to the Administration on the 1st January. 1922. Those that elected to remain private schools were: Swakopmund, Luderitz, Karibib, and Tsumeb. The German High School in Windhoek remains a private school. The general principle of the Concordat is that the transferred schools are financed by the Administration, and adopt the Union curriculum and system, retaining German as medium to the end of the elementary course. All scholars above Standard I receive a daily lesson in a Union official language, as chosen by the parents. This becomes the chief medium of instruction after Standard VI.

From the 1st January, 1924, for a period of five years, the Administration is subsidizing the German Realschule at Windhoek and the German Volks- und Realschule at Swakopmund on the pound for pound principle. From the 1st January, 1925, for a period of four years, the Administration is subsidizing the German schools at Luderitz, Tsumeb, and Karibib on the same basis, and is also paying a grant to the hostels conducted in conjunction with the above two schools at Windhoek and Swakopmund.

2. **Administration.**—All financial and technical matters are controlled by the Administration of the country. Local committees are appointed to represent the parents. Their functions are mainly advisory. There is no district education rate.

3. **Government Schools.**—Provision is made for both primary and secondary education. The code is that of the Cape Province. Primary education is free, but fees are charged for secondary instruction. There are boarding hostels maintained by the Administration.

GOVERNMENT SCHOOLS IN SOUTH WEST AFRICA.

Name of School.	Staff.	No. of Pupils.	No. of Boarders in Schools with Hostels.	Name of School.	Staff.	No. of Pupils.	No. of Boarders in Schools with Hostels.
Aubes (farm).....	1	18	—	Maltahoehe (primary).....	2	48	44
Aus (primary).....	3	64	43	Mariental (primary)	2	37	—
Blumenfelde (farm)..	1	12	—	Narubis (primary)..	2	46	38
Damara (primary)...	1	24	—	Narubis-East (farm)	1	17	—
Doornboom (farm)...	1	10	—	Okahandja (primary)	3	54	—
Esselen (farm).....	1	14	—	Omaruru (primary).	5	91	36
Fonteintjes (farm)...	1	15	—	Omingondo (farm)..	1	16	—
Garup (farm).....	1	24	—	Otjiwarongo (primary).....	1	19	—
Gemsbokvlakte (farm)	1	18	—	Outjo (primary)....	2	34	18
Gibeon (primary)....	3	65	40	Salztal (farm).....	1	8	—
Gobabis (primary)...	4	85	52	Stamprietfontein (primary).....	3	71	49
Golden Aue (farm)..	1	18	—	Swakopmund (secondary).....	8	183	58
Grootfontein (primary).....	6	103	68	Tierberg (farm).....	1	24	—
Gross Aub (farm)...	1	16	—	Ukamas (primary)..	2	68	58
Ham River (farm)...	1	22	—	Usakos (primary)...	4	67	—
Kalkfeld (primary)...	1	17	—	Vreemdeling (farm).	1	12	—
Kanus (primary)....	2	49	—	Walvis Bay (primary).....	2	46	—
Karibib (primary)...	3	61	32	Warmbad (primary)	4	107	57
Keetmanshoop (secondary).....	12	261	50	Windhoek (high)...	15	334	70
Klein Nabas (farm).	1	10	—	Windhoek (primary)	9	234	98
Klipdam (primary)..	2	42	42	TOTAL.....	123	2,593	906
Kub (primary).....	3	60	53				
Kuibis (farm).....	1	13	—				
Luderitz (primary)...	2	56	—				

4. **Coloured and Native Education.**—The education of the coloured people and the natives is under the supervision of the various missions. The Administration pays the salaries of the teachers and supplies furniture, equipment, and books free of charge. The missions have to supply the buildings. There are only a few coloured schools in the country. Those at Windhoek and Luderitz are under the aegis of the Anglican Church of Damaraland and those in the Rehoboth area are under the Rhenish Mission. The education of the natives is in the hands of the Finnish Mission in Ovamboland, and the Rhenish and Catholic Missions in Damaraland and Namaland. The Wesleyan Church is also taking an active interest in this work. The Education Department has registered fifty-seven mission schools. Thirteen of these have not yet qualified for Government aid. In addition, there is a training school for native teachers at Okahandja. This training school is conducted by the Rhenish Mission. During the long summer vacation the Department conducts summer schools, which provide refresher courses for acting native teachers.

§ 8. Administration of Justice.

1. **Legal System.**—Article 2 of the Mandate, under which the territory is administered by the Government of the Union of South Africa, gave to the Mandatory full power of administration and legislation over the territory as an integral portion of the Union, and authorized the Mandatory to apply the laws of the Union to the territory, subject to such local modifications as circumstances might require. By the *Administration of Justice Proclamation*, 1919, the Roman-Dutch law as existing and applied in the Province of the Cape of Good Hope on the 1st January, 1920, was introduced as the common law of the territory, and all existing laws in conflict therewith were to the extent of such conflict repealed, except proclamations issued during the military occupation and in force on the said date, which continued to remain in force. Rights already accrued and liabilities already incurred were preserved. The effect of this proclamation was considered by the High Court in the cases of *Tittel* v. *The Master* (12th July, 1921) and *Collisons (S.W.), Ltd.* v. *Kruger and others* (2nd July, 1923), which laid down that Roman-Dutch law had been introduced into South West Africa, together with all the modifications which it had undergone in the Cape Province by desuetude, custom, judicial decision, and statute, whether abrogating or enacting. It was accordingly held, in the former of the cases mentioned, that the statutory law of the Cape Province relating to the execution of wills was the law of the territory, and in the latter case that the Cape law of prescription as contained in Act No. 6 of 1861 was also part of the law of the territory. Much of the statute law of the

Union has been specifically extended to the territory by proclamation, subject to amendments required by local circumstances. Amongst such statutes may be mentioned those relating to interpretation of laws, solemnization of marriages, insolvency, administration of estates, mental disorders, deeds registration, companies, bills of exchange, stamp duties, prisons, profiteering, rents, public health, immigration, pounds, liquor licensing, inquests, concealment of birth, protection of girls and mentally defective women, prevention of cruelty to animals, stock theft, diseases of stock, vagrancy, masters and servants, workmen's compensation, police offences, preservation of game, and usury. Certain portions of the German law (for example, that portion relating to mining) have been kept alive by express provisions in proclamations issued by the Administrator. A few Acts of Parliament of the Union apply directly to the territory; for instance, Acts Nos. 20 and 24 of 1922, 27 of 1923, 30 of 1924, and 42 of 1925.

The law in force in South West Africa includes, therefore, (i) the Roman-Dutch law, with the modifications it has undergone in the Cape Province as explained above; (ii) certain Union Acts of Parliament which apply directly to the territory; (iii) proclamations issued by the Administrator, some of which specifically introduce Union statutes; (iv) those portions of the German law which have been expressly preserved; and (v) those fragments of the German law which have survived by reason of the fact that they do not conflict with any of the laws already mentioned.

2. **Superior Courts.**—On the 1st January, 1920, military courts were abolished and civil courts established. A superior court, entitled the High Court of South West Africa, was created, consisting of a single Judge. It has its seat at Windhoek, but may be held at other places appointed by the Judge. In civil cases the Judge sits alone, but in criminal cases the court is composed of the Judge, who is president, and two other members, who must be either advocates or magistrates. The decision of the majority constitutes the judgment of the Court. There is no jury.

An officer, styled the Attorney General, has been appointed who, in regard to the prosecution of crimes and offences, possesses the powers of an attorney-general in a Province of the Union under section 129 of the *South Africa Act*. There are also a Registrar and a Master of the High Court, a Registrar of Deeds, and a Sheriff.

By Proclamation No. 38 of 1920, circuit courts were established, with a similar constitution to that of the High Court. The territory is divided from time to time into two or more circuit districts, in each of which two circuit courts are held annually.

An appeal from the High Court or from a circuit court, whether in the exercise of civil or criminal jurisdiction, lies to the Appellate Division of the Supreme Court of South Africa under the same circumstances and subject to the same conditions as an appeal lies from a Provincial Division of the Supreme Court of South Africa. In cases of an appeal from orders or judgments of the High Court or a circuit court upon application by way of motion or petition, or on summons for provisional sentence, or judgments as to costs only, or on civil or criminal appeals from a magistrate's court, special leave to appeal must first be obtained from the Appellate Division.

The law of procedure and evidence in the High Court and in circuit courts in civil cases is that of the Cape Provincial Division of the Supreme Court of South Africa, and in criminal cases that prescribed by the Union *Criminal Procedure and Evidence Act*, 1917, which has been extended and applied to the territory with certain amendments.

Rules for the conduct of proceedings in the High Court and circuit courts are framed by the Judge of the High Court, and subject to the approval of the Administrator.

3. **Inferior Courts.**—Magistrates' courts were also established on the 1st January, 1920, which have the same jurisdiction and observe the same procedure as the magistrates' courts in the Union. An appeal lies to the High Court of South West Africa from a judgment of a magistrate's court in the same circumstances and on like terms and conditions as an appeal may be had to a Provincial Division of the Supreme Court of South Africa from a magistrate's court in the Union. All sentences imposed by a magistrate's court of whipping or of fines exceeding £5 sterling or of imprisonment exceeding one month are reviewed by the High Court. The country is divided into eighteen magisterial districts, each of which is the area of jurisdiction of a magistrate's court. These courts are situated at the following places:—Aroab, Bethanie, Gibeon, Gobabis, Grootfontein, Karibib, Keetmanshoop, Luderitz, Maltahoehe, Okahandja, Omaruru, Ondonga, Otjiwarongo, Outjo, Rehoboth, Swakopmund, Warmbad, and Windhoek. Periodical courts are also held by magistrates at other places at regular intervals. There is no Rules Board as in the Union, but by Proclamation No. 1 of 1920, the judge of the High Court has been empowered to frame new rules and repeal and amend existing rules of magistrates' courts, subject to the approval of the Administrator.

Special justices of the peace have been appointed under Proclamation No. 25 of 1921 at Kalkfontein South, in the District of Warmbad; Narubis, in the District of Keetmanshoop; Seeis, in the District of Windhoek; Naosanabis and Steinhausen, in the District of Gobabis; Hofmeyr and Mariental, in the District of Gibeon; Gobabis, Grootfontein, and Luderitz.

Special justices of the peace have jurisdiction in criminal cases to impose a sentence of fine not exceeding £10 sterling and imprisonment not exceeding one month. Except in the case of juvenile offenders, special justices of the peace may not impose a sentence of whipping. All sentences imposed by special justices of the peace are reviewed by the High Court. Special justices of the peace have no jurisdiction in civil cases.

4. **General.**—The power to remit sentences is vested in the Administrator, except as regards death sentences, in which case the prerogative of mercy may be exercised by the Governor-General-in-Council of the Union. The official languages of the courts are English and Dutch. In criminal cases interpreters are provided in other languages free of charge, and in the High Court an interpreter in the German language is provided free in civil cases also.

By Proclamation No. 26 of 1920, provision was made for the arrest and surrender of fugitive offenders from adjoining territories. Provision was also made to enforce the attendance before the courts of such territories of persons resident or being within the territory and required as witnesses in either civil or criminal proceedings. By Act No. 24 of 1922 of the Union Parliament provision was made for the reciprocal service and enforcement in the Union and the territory of civil and criminal summonses, orders, warrants, and other processes of magistrates' courts and superior courts. Provision was also made for the removal of proceedings, whether criminal or civil, from a superior court in the Union to the High Court of South West Africa, and *vice versa*. The same Act provided that for all judicial purposes the port and settlement of Walvis Bay should be regarded as a part of the territory of South West Africa. That port and settlement has been included in the Magisterial District of Swakopmund.

5. **Principal Judicial and Police Officers.**—The following is a list of the principal judicial and police officers in the Territory :—

Judge of the High Court of South West Africa	Col. C. Gutsche, C.B.E., V.D., B.A., LL.B.
Registrar of the High Court, Taxing Officer, and Sheriff	J. D. M. Rosenow, B.A., LL.B.
Master of the High Court	J. P. le R. Esterhuysen.
Attorney-General	G. du Toit Voss, B.A., LL.B.
Divisional Inspector, South West Africa Police	Major C. A. B. van Coller, M.B.E.

6. **Admission of Legal Practitioners.**—Provision has been made for the admission of advocates, attorneys, notaries public, and conveyancers. The High Court may admit to practice as an advocate or attorney any person entitled to practice or to be admitted to practice as an advocate or as an attorney, as the case may be, in any division of the Supreme Court of South Africa. No person may be admitted to practice both as an advocate and as an attorney. Certain practitioners of the former courts of German South West Africa may also be admitted to practise as advocates or as attorneys. The High Court may also admit as an attorney any person who, after having passed the matriculation examination of any university in the Union of South Africa or an equivalent examination, has served with a practising attorney in the territory under articles of clerkship for three years, and has passed the examination in law and jurisprudence of the University of the Cape of Good Hope or an equivalent examination of another South African university, and who has also passed an examination in practice by three examiners appointed by the Court. Any person admitted to practice as an advocate or attorney by the High Court may also appear in any proceedings before a magistrate's court. The High Court exercises jurisdiction in respect of advocates, attorneys, notaries public, and conveyancers similar to that exercised by the Cape Provincial Division of the Supreme Court in respect of practitioners in the Cape Province. By Proclamation No. 32 of 1921, the Law Society of South West Africa was established.

7. **Prisons.**—There are at present eleven goals and eight lock-ups under the Prison Branch of the Administration. The gaols are classed as follows :—

1st Class—Windhoek.
4th Class—Luderitz, Keetmanshoop, Grootfontein, Outjo, Gobabis, Gibeon, Omaruru, Warmbad, and Swakopmund.
5th Class—Karibib.

The daily average of prisoners in the whole of the territory for 1924 was approximately 301, only a small percentage of whom were Europeans. Of this number 121 were at the Windhoek gaol, at which place all long-sentenced prisoners are concentrated, and the usual prison industries carried out. The local natives dislike sentences of imprisonment, and if possible pay a fine in preference. The recidivist is not the local native, but a native of the Union or other part of South Africa. Gaols and lock-ups are administered in accordance with the Union Prison Act (No. 13 of 1911), and regulations framed thereunder.

Generally speaking, the gaol buildings were not built on modern prison lines, being low structures without proper ventilation; while the sanitary arrangements were crude. Every endeavour has been made to place the gaols in a good sanitary condition, and to provide ample ventilation for the cells.

The number of convictions for breach of gaol regulations is very low, and only for minor offences such as being in possession of unauthorized articles, i.e. tobacco, matches, etc.

§ 9. Native Administration.

1. **Native Population.**—A census was taken in 1921 when the native population, which was partly enumerated and partly estimated, was returned as 177,482. This included estimates of those living in Ovamboland, the Kaokoveld, the Okavango, and the Bushmen on the north-eastern border, and as these persons are living under natural conditions, there is no reason to suppose that their increase has been otherwise than normal. In regard to those resident in the territory proper, i.e. inside the police zone, estimates by magistrates of the various districts show their number to be in the region of 81,823, which is a substantial increase on the census figures.

In the absence of birth and death statistics, an estimate of the population is unreliable, but as the natives, generally speaking, are living under healthy conditions, it may fairly be assumed that their numbers are increasing steadily.

2. **Native Labour.**—The increased activity in mining operations generally has created a great demand for mine labourers, and as the wages offered are higher and the conditions of employment more attractive than those which the farmer is able to provide, this activity has resulted in a marked shortage of labour available for pastoral and agricultural pursuits.

In the past, the labour supply for the mines was drawn from Ovamboland and the Okavango area in the northern portion of this territory, but the demand now far exceeds the supply, with the result that the diamond mines at Luderitz are now greatly dependent upon recruits obtained in Bechuanaland, Basutoland, and other parts of the Union, whilst the labour for the tin and copper mines inland is drawn, in the case of the former, from recruits obtained within the police zone and in the latter case from voluntary labour obtained from Ovamboland. The labour from the Okavango area is distributed amongst farmers and inland mining concerns as it has been found that these natives are unable to stand the rigours of the climate at the coast.

The chief employers of labour in the territory are the Railway Department, the Chamber of Mines at Luderitz, the Otavi Copper Mining Company in Tsumeb, the South West Company, and the various tin mining companies in the districts of Omaruru and Karibib. They employ both skilled and unskilled labourers, derived to some extent from local sources, but for the most part from Ovamboland and the Okavango area.

In Ovamboland, the Okavango, Windhoek, Tsumeb, and Luderitz officers have been specially appointed for the purpose of native administration, whilst in the country districts the control is vested in the magistrates.

3. **Native Law.**—The main provisions of the native law, apart from those dealing with masters and servants, which is practically the law as it exists in the Cape Province, in areas which have been opened up for settlement of Europeans, are embodied in the following enactments :—

(*a*) The Native Administration Proclamation, which supersedes many of the old German laws and constitutes the principal pass law, regulating as it does the movements of natives within the territory and of those desirous of leaving or entering it. This Proclamation also provides for the exemption of natives under certain conditions from the carrying of passes, and contains provisions for the establishment of reserves and the control of natives therein and on farms. The pass laws are not applicable in purely native areas such as Ovamboland, nor in the Rehoboth District. The Native Labour Proclamation, 1917, applies more particularly to the control and welfare of natives working within mining areas.

(*b*) The Vagrancy Proclamation, which provides for the suppression of idleness and trespass. Natives are allowed to select their own masters, and strict instructions have been issued against forcing natives to take service with particular masters against their will. When a native is dilatory in finding employment, an employer can be indicated, and if he refuses to engage himself, he can be prosecuted under the *Vagrancy Act*. Before sentencing natives under the Vagrancy Laws, magistrates are required to give the offender an opportunity of taking employment in preference to undergoing imprisonment. Certificates of exemption from labour may be granted to natives having visible means of support, such as possession of stock. Persons unfitted for labour by reason of old age or physical infirmity are *ipso facto* exempted persons

(*c*) The Municipal Proclamation, which empowers municipalities, *inter alia*, to make regulations, subject to Government sanction, for the control and management of native locations within their respective areas.

(*d*) The Natives' Stock Brands Proclamation, which provides for the branding and registration of their large stock, frees natives from the liability of having to purchase branding irons. Under this Proclamation these irons are supplied by the Administration and are in the custody of prescribed officials under whose supervision the stock is branded.

(*e*) The Native Reserve Trust Fund Proclamation which provides for revenue collected in reserves, being spent entirely in the interests of the natives resident in the reserves concerned.

(*f*) The Urban Areas Proclamation, which adopts all the main provisions of the Union *Natives (Urban Areas) Act* of 1923, and omits only those which are not applicable to the conditions obtaining in the territory and which have been applied to the town of Windhoek and the port of Walvis Bay.

4. **Liquor Prohibition.**—In order to secure the advancement of the native, and to prevent as far as possible his lapsing into crime, it is forbidden to place in the care of, or give, sell, or deliver to any coloured person any intoxicating liquor except for medicinal purposes on the production of a prescription from a qualified medical practitioner. It is further unlawful for a master to give his servant "tots" of liquor, as is also brewing of kaffir beer without permission.

5. **Native Reserves.**—With a view to the reconstruction, as far as practicable, of tribal organization and the provision of areas in which the natives may live under healthy and natural conditions together with their stock, reserves have been established in various districts. These are generally controlled by the hereditary chief, if any, or an elected or appointed headman, who is responsible to the magistrate of the district for the preservation of law and order in and about the reserve. In some instances, European superintendents have been appointed for the purpose of closer supervision of the reserves. This system of native administration can be said to serve a double purpose, in that it ensures a settled, contented population, and creates a potential labour-recruiting field for the future. All the areas selected for native reserves have existing water supplies, but, as these are not conveniently distributed and, in some cases, insufficient, boring operations upon a considerable scale are being undertaken. It is the policy of the Administration to provide adequate supplies before finally proclaiming any such area as a reserve.

Purely native areas such as Ovamboland and those secured by old treaties have not been disturbed, whilst various additional reserves have been provided, subject to conditions proving suitable and, if not, alternative areas have been provisionally set aside.

The movement of natives and stock from and to various places in connexion with the foregoing policy makes it difficult to obtain reliable statistics as to their numbers.

The following native reserves have been proclaimed:—

NATIVE RESERVES IN SOUTH WEST AFRICA.

District.	Name.	Extent.	By Whom Occupied.
(*a*) LAND OCCUPIED BY NATIVES UNDER GERMAN TREATIES.			
		Hectares.	
Keetmanshoop	Bersheba Hottentot Territory	575,000*	Bersheba Hottentots.
Warmbad	Bondeis Reserve	174,505	Bondelzwarts.
Omaruru	Bergdamara (Okombahe)	172,780	Bergdamaras.
Outjo	Zessfontein	31,416	Topnaar and Swartbooi Hottentots.
Outjo	Fransfontein	36,188	Zwartbooi Hottentots.
Bethanie	Soromas	8,212	Bethanie Hottentots.
(*b*) RESERVES ESTABLISHED UNDER SECTION 16 OF THE NATIVE ADMINISTRATION PROCLAMATION, 1922.			
		Hectares.	
Malthohe	Neuhof	20,500	Various Tribes.
Keetmanshoop	Tses	229,925	Hottentots, Hereros, and Damaras.
Okahandja	Ovitoto	47,791	Hereros.
Grootfontein	Otjituo	105,768*	Chiefly Hereros.
Gobabis	Aminius	230,000*	Bechuanas and Hottentots.
Gobabis	Epukiro	178,000*	Chiefly Hereros.
Otjiwarongo	Waterberg East	311,000*	Hereros and Damaras.
Gibeon	Gibeon Reserve	38,782	Witbooi Hottentots.

* Approximate.

NOTE.—Ovamboland and certain areas along the Okavango River and in the Kaoko-eld are native reserves.

§ 10. Land and Irrigation.

1. **Land Settlement.**—The following statement relative to the ownership of land in the territory (exclusive of Ovamboland and the Caprivi-zipfel) has been prepared from the returns issued by the Surveyor-General of the previous German Government :—

LAND OWNERSHIP IN SOUTH WEST AFRICA, 1912–13 TO 1913–14.

Description.	Area.	
	1912–13.	1913–14.
	Acres.	Acres.
Total Area	206,245,000	
Government Land	150,888,491	150,931,946
Government Land suitable for Farmers	121,273,727	121,365,806
Native Land (including Bastard Gebied)	7,190,170	7,146,715
Land Held by Companies	29,609,970	30,021,126
Land held by Companies suitable for Farms	21,932,172	21,932,222
Land Sold—		
Government Land, 1,120 Farms	28,377,830	29,369,743
Native Land, 56 Farms	1,490,561	1,635,953
Company Land, 71 Farms	1,144,571	1,345,515
Land Leased—		
Government Land, 82 Farms	1,371,265	1,697,809
Native Land, 7 Farms	167,219	68,419
Company Land, 49 Farms	1,635,140	1,101,919
Land Available for Sale and Lease—		
Government	83,066,078	81,901,562
Native	5,557,090	5,442,344
Company	19,152,010	19,484,788
Surveyed Government Land available for Lease	(614 Farms)*	(709 Farms)*
Government Land Reserved, 297 Farms	8,458,552	8,396,693
Native Reserves—		
Bondelswartz and Hottentots	432,250	432,250
Berg Damaras	424,840	425,581
Game Reserves	21,693,763	21,693,763

* Extent not known.

Of the 1,331 farms (representing a total of 33,082,206 acres) which were in private possession within the territory on the 1st April, 1913, 1,138 farms are being developed. The area of the 193 undeveloped farms is 4,642,555 acres (i.e. 14·03 per cent. of the total area). There were also 337 closer settlement holdings, having an area of 9,230 acres. These holdings are situated in selected lands at Okahandja, Omaruru, Waterberg, Gobabis, Gibeon, and Keetmanshoop. The prices for these holdings varied from one-half to one pfennig per square metre, according to the quality of the land. Of the 337 holdings, 180 (having an area of 1,748 acres) are uncultivated. A land tax is leviable on all landed property, rural and urban, and has yielded about £15,750 per annum. The land tax is still being collected from owners of land in the territory in accordance with the German Ordinance.

Crown lands in the territory are now being disposed of under the Union *Land Settlement Act*, 1912, as amended by the Act of 1917 and the *Land Settlement Acts Amendment Act*, 1920 (Union), as applied to the territory by Proclamation No. 14 of 1920, as amended.

Under this Proclamation land is from time to time advertised as available for settlement purposes by notice in the official *Gazette* and in newspapers circulating in the territory and Union. The farms are advertised for eight weeks, after the expiry of which period all applications are considered by the Board.

During the twelve months ended 31st December, 1921, 245 farms were allotted ; of these 39 were surrendered and withdrawn. Up to 31st December, 1923, 662 farms were allotted ; of these 128 were surrendered or cancelled during the same period.

It is advisable that intending settlers should be possessed of a capital of from £1,000 to £2,000.

The Administration is prepared to assist approved settlers by advances for—

(1) The building of a dwelling-house ; the maximum amount that can be advanced under this heading is £400.

(2) Boring for water or for the construction of wells and dams.

(3) The purchase of stock. Under this heading the maximum advance for the purpose is £750. Remission of rent for the second and third years of a settler's operations may be granted, where a settler has effected improvements of a permanent nature to the value or 10 per cent. of the prairie value of the holding allotted to him.

The Administration is also prepared to consider applications from persons or companies desirous of ranching on a considerable scale, and for this purpose a few ranching blocks have been advertised. The size of these ranches will depend largely on the districts in which they are situated, but it may be taken that each ranch will comprise approximately six ordinary farms. It is doubtful whether any such ranches will be advertised in the southern districts of the territory. The conditions under which the ranches will be allotted will be similar to those in force in the Transvaal, and will provide *inter alia* for occupation by representatives of the allottees, and the stocking of each ranch with a prescribed number of stock.

Crown land values range from 1s. to 6s. per hectare ($2\frac{1}{10}$ acres) according to quality and locality.

Inquiries should be addressed to the Senior Officer, Lands Branch, Windhoek, S.W.A.

2. **Water Supply and Irrigation.**—Generally speaking, the territory, which is essentially a cattle-raising country, depends for its water supply on subterranean streams, of which there are a good number in all parts of the country. The cattle farmers, therefore, mainly adopt the method of sinking wells and boreholes in order to obtain water for their stock. Along the Auob River Valley, in the Gibeon district, and on the farms on the joint Nosob River, lying between the parallels 22° and 23° south in the Gobabis district, there are a number of artesian boreholes sunk in the Karroo formation. Water is usually found on layers of sandstone, between beds of shale. The depths of the artesian holes vary from 250 to 530 feet, and the minimum and maximum yields from this source are from 90,000 to 1,000,000 gallons per diem. These boreholes are under control, and water can be shut off when not required.

Although the river system is not inconsiderable, it does not form a reliable water supply, since the rivers, with three exceptions, are intermittent, and are always dry in the winter. The following are the chief rivers :—

The Orange River, which forms the southern boundary, is perennial. Its northern bank, however, is so mountainous that practically no land is available for irrigation purposes.

The Kunene, on the northern border, is also perennial, and capable of being turned to good account if some of its waters were diverted and conducted along the Omarumbas leading into the Etoscha Pan.

The Okawango, on the north-eastern boundary, is also perennial, and flows into the Zambesi. From the point of view of irrigation it is of very little use to the territory.

The Fish River has its source in the southern portion of the highlands, and, with its tributaries, drains the whole south central plateau.

The Nosobs, with their tributaries, the Schaap, the Elephant, and the Auob, make their way to the south-east, and finally join the Malopo somewhere between the 20° and 22° east longitude and 26° and 28° south latitude.

The Chapman River has an easterly course, and is finally lost in the Kalahari.

The Epikuro River, and the Eiseb, are said to flow into Lake N'Gami, although it is possible that they also disappear into the sands of the Kalahari.

The Omatako, with its many tributaries, has a more northerly course, and divides at Otjitu-o, one branch turning due east and being finally lost in the desert, and the other branch entering the Okawango near Kanganga.

The *Ovambo Omuramba* has its source somewhere near Blockfontein on the Omatako, and flows west into the Etoscha Pan, this being the only water-course whose flow is not lost to the territory.

From historical accounts of the territory by the explorers Alexander, Galton, and Anderssen, it seems that not very long ago the water supply in this country was much more abundant than at present, and it is known that the country is undergoing a process of desiccation in so far as open water is concerned. How to prevent the enormous waste of open water which is at present going on is a problem to be dealt with in the future.

The construction of dams on a large scale but of moderate size and cost will very greatly assist in this direction. Surface water will not only be preserved, but subterranean water supplies should also benefit. During the dry years of 1921 and 1922 conclusive proof was available that the subterranean water-table in many localities was sinking.

The abundant rains have had a beneficial effect on the underground water supplies as a whole. The subterranean water-table in South West Africa lies at a considerably greater depth than in other parts of the Union, the average depth of boreholes being 270 feet in this territory against 150 feet in the Union. The supplies obtained are in almost every case permanent and can be relied upon to supply the required quantity during the whole of the dry season. The development of subterranean water supplies is being continued to the fullest extent and every endeavour is made to provide each farm with an adequate and efficient supply of water.

Forty-eight boring machines were in commission at the end of 1924. The following table gives the total footage drilled and the yield obtained in recent years :—

WATER-BORING OPERATIONS, 1920-21 TO 1924-25.

Year.	Boreholes Completed.	Boreholes in Progress at end of year.	Aggregate Depth.	Yield per Diem.
			Ft.	Gals.
1920-21	15	9	4,730	217,000
1921-22	68	30	23,344	1,981,000
1922-23	143	41	40,747	6,036,700
1923-24	167	51	53,983	8,962,400
1924-25	246	48	70,767	6,943,445

3. **Rainfall.**—The rainfall of the various districts in the territory does not, owing to its uncertainty, form a reliable water supply, and this fact is one of the main obstacles to the extension of agricultural pursuits. Generally speaking, the rainfall increases from south to north and from west to east. The maximum amount of rain falls accordingly in the north-eastern area, and the minimum rainfall is found in the south-west. The heaviest precipitation takes place during the summer months from December to February over the northern area. In the south, on the other hand, winter rains have been experienced. The rainfall statistics for the various districts are given hereunder :—

(i) **RAINFALL STATISTICS IN TERRITORY, 1920-21 TO 1924-25 (in Inches).**

Locality.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
Warmbad	4·14	1·33	9·08	2·62	4·25
Luderitz	2·47	0·53	1·92	0·44	0·75
Aroab	9·30	5·21	10·18	7·44	11·23
Keetmanshoop	7·78	3·11	11·41	6·73	8·93
Bethanie	5·39	3·46	10·65	1·52	9·62
Gibeon	14·21	1·99	16·39	3·42	9·15
Maltahoehe	11·11	3·32	19·42	1·79	7·42
Rehoboth	13·60	3·44	28·64	7·61	21·10
Gobabis	15·60	7·95	21·19	11·63	19·00
Windhoek	16·44	6·63	29·48	9·71	21·03
Swakopmund	1·24	0·01	1·50	0·82	0·72
Okahandja	14·18	7·00	25·47	6·82	25·97
Karibib	13·02	2·50	17·56	3·15	11·34
Omaruru	14·76	5·80	15·21	7·44	20·16
Otjiwarongo	16·76	6·42	19·70	12·56	23·76
Outjo	21·51	8·20	16·21	10·80	25·69
Grootfontein	28·56	11·99	35·50	13·72	34·70
Tsumeb	24·48	10·80	24·26	14·46	37·70

(ii) **AVERAGE RAINFALL, 1898 TO 1924 (in Inches).**

Locality.	Yearly Average.		Locality.	Yearly Average.	
	1898 to 1908.	1909 to 1924.		1898 to 1908.	1909 to 1924.
Outjo	13″	8″	Windhoek	13½″	13″
Grootfontein	22″	23½″	Rehoboth	9½″	10″
Omaruru	15″	11″	Maltahoehe	6″	6″
Okahandja	15″	13¼″	Gibeon	6¼″	9″
Gobabis	16″	16″			

4. **Concession Companies.**—In December, 1919, a Commission was appointed to inquire into the titles of several companies which had extensive rights in the territory. The Commission reported in September, 1920, and Proclamation No. 59 was issued on 17th November, 1920, by which many of these rights were cancelled.

The general effect was to put an end to certain large mining monopolies and throw the whole country open to prospecting. Two companies lost large land holdings.

§ 11. Agriculture and Fisheries.

1. **Agricultural Conditions.**—The climatic conditions prevailing in the territory are not generally favourable for the pursuit of agriculture. In the north, where the average rainfall is about 22 inches, crops of maize, potatoes, pumpkins and beans are raised; but as the rainy season is usually of short duration, the heat excessive, and the frost early, such crops cannot regularly be relied upon. As illustrating this, it may be mentioned that from the above source about 8,000,000 lb. of maize were purchased in 1917 by the Administration for horse fodder, only 2,200,000 lb. in 1918, owing to the fact that no more was available, and none in 1919 owing to the failure of the crops as the result of early frosts.

Further south, along the banks of the Black and White Nosob Rivers, where the average rainfall is about 15 inches, similar crops, though not as large as those in the north, have been raised; but these also are uncertain, as they are entirely dependent upon the rains. Still further south along the bed of the Auob River are several artesian wells with a pressure sufficient to raise the water to a height of thirty feet, and so enable the lands on either side to be placed under irrigation. A great deal has been done in this direction lately, and there are great possibilities in the way of wheat crops.

The following figures give the results of an agricultural census taken in 1924:—

No. of Farms	1,650		Wheat	1,023,400	lb.
Area Irrigated	1,561	morgen.	Maize	1,563,600	,,
Area Irrigable	7,510	,,	Oats	—	
Area Cultivated	12,567	,,	Kaffir Corn	175,600	,,
Area under Crops	12,351	,,	Potatoes	580,500	,,
Wheat-growing Area	568	,,	Tobacco	130,600	,,
Maize-growing Area	9,241	,,	Beans	136,300	,,
			Lucerne	153,000	,,

No. of Fruit Trees 36,940
Vineyards: No. of Vines 57,800

2. **Pastoral Production.**—In regard to pastoral products, the territory is not only self-supporting in regard to beef and mutton, but is now, and has been for years past, a source of supply of cattle and small stock for the meat trade in the Union. Other products, such as skins, hides, horns, wool, mohair, and ostrich feathers, showed a steady increase for the period 1909 to 1913, up to which year statistics are available; and, with the opening up of this country to settlers, there is not the slightest doubt that this increase will be maintained. The whole of the territory, with the exception of the coastal belt, is admirably suited for pastoral pursuits. From Gibeon south to the Orange River the country lends itself almost entirely to small stock farming. By far the greater number of small stock consists of Africander and bastard sheep, which thrive exceedingly well, though Angora goats and merino sheep are also farmed successfully. The middle portion of the territory is suitable for Karakul sheep. The flock of Karakul sheep on the experimental farm Neudamm is perhaps the largest and most valuable in South Africa. The Karakul industry is receiving the careful attention of the Administration, as it is from this branch of farming, if conducted on scientific lines, that great development may be expected. This, and the northern portion of the country, is ideal for cattle farming. It is covered with bush and trees, which afford shade for stock in summer and shelter from the cold winds in winter. The climate is good, and there is a plentiful supply of various grasses, the majority of which are sweet, nourishing, and drought-resisting, so that, when once the unlimited supply of underground water is tapped by boring, the country is destined in all probability to become the finest cattle-ranching portion of South Africa. In addition to this, it is remarkably free from stock-diseases and tick-borne pests. Ticks, however are on the increase and the dipping of cattle will have to be considered.

The common diseases affecting stock are horse-sickness (during certain seasons only and mostly confined to the northern districts), and dourine in horses (which is, however, not common in this territory, and is being rapidly eliminated); anthrax and blackquarter in cattle; and scab, wire-worm and, at times, blue-tongue, amongst sheep.

The German Government encouraged horse-breeding, and established a number of studs, but the tendency now is to take up cattle farming, as this has been found to be the more profitable. In this connection it may be mentioned that the Government assisted the farmer by introducing pure-bred cattle from Europe, with very beneficial results, as it was found that the imported breeds readily acclimatized, throve as well as the indigenous stock, and matured more quickly. This accounts for the fact that the class of cattle as a whole is of a superior grade. The present Administration has imported a number of pure-bred stock from the Union for sale to farmers on easy terms. It has acquired a thoroughbred stallion for service of farmer's mares.

Ostrich farming may now be regarded as non-existent. In 1911 the late German Government established an ostrich-breeding farm at Otjituesu, about 35 miles from Windhoek. The original stock, comprising 23 breeding birds, was obtained from the Cape Province,

and a Cape farmer was appointed manager. In 1913 there were 132 birds on the farm; but during the recent hostilities these escaped, and have since become wild—a fact which possibly accounts for the splendid plumage occasionally seen on wild birds in this part. The territory as a whole may be regarded as the home of the wild ostrich.

3. **Statistics.**—The following figures represent the results of a live stock census taken at the end of the year 1924:—

Cattle	566,912	Woolled Sheep	43,620
Horses	20,387	Karakuls	103,300
Mules	1,983	Other Sheep	861,592
Donkeys	36,490	Angora Goats	15,719
Pigs	6,132	Other Goats	932,476

During the year 1924, 30,709 head of cattle and 159,755 sheep and goats were exported to the Union.

The following are the details of the cattle exports:—

CATTLE EXPORTS FROM SOUTH WEST AFRICA DURING THE YEAR 1924.

To Union by rail and road	30,709
To Europe by sea	763
To Angola by land	1,944
TOTAL	33,416

4. **Forest Resources.**—Strictly speaking, there are no forests in the country; nor has any forestry been undertaken by the late Government on such a scale as to call for remark. Belts of *Camel Thorn* are to be found throughout the territory north of Rehoboth, whilst north of Grootfontein, *Tambootie* and *Syringa* grow in large patches, and west thereof *Mapani* predominates. South of the River Huab, in the District of Outjo, large numbers of *Camel Thorn* grow, whilst north of this river broad strips of *Mapani* are to be found. In the District of Gobabis are strips of *Camel Thorn*, and along the water courses *White Thorn* grows profusely, whilst the sand dunes are thickly studded with *Yellow Wood*. Besides all these above-mentioned, and in the areas referred to, are to be found *Marula*, *Dolf*, *Deurmekaar*, *Wild Fig*, *Wild Orange*, *Olijvenhout*, *Ebony*, and other varieties, all of which could be turned to good account in making mining props, furniture, wagon parts, and for other purposes. The German Government seems to have contented itself with establishing experiment gardens for exotic trees at various centres, and these supplied official and private requirements. These trees were of the decorative sort, and comprised *Blue Gums*, *Pepper*, *Pine*, *Prosopsis*, and *Jacaranda*.

5. **Fisheries.**—The fishing industry in the Territory, with the exception of whaling, has not yet been exploited to any extent. With regard to the supply of fresh fish, the distance from the coast to any markets of consequence presumably deters any outlay of capital in exploiting this industry. There are, however, a considerable number of crayfish in the vicinity of Luderitz, and four canneries have been established there. During the last four years, several cutters engaged in catching *Snoek* have made their headquarters at Walvis Bay, and although no statistics are available, it is known that they have met with considerable success, and have made large profits. The fish is dried and sent to Cape Town for disposal. Before the war, well-equipped whaling stations were established at Walvis Bay and Luderitz. The Walvis Bay Whaling Company resumed operations at Walvis Bay in 1923.

Sealing has been carried on at Cape Cross since 1922.

§ 12. Mines.

1. **Exploration.**—The territory was but little explored up to the middle of the last century. Before this time, setting aside the activities of the missionary Von Schmelen (referred to in §1), only the English traveller Alexander had penetrated (in 1836–37) as far as the lower and middle Kuisib River, which for a long time afterwards remained unvisited by any European. Later on, the explorations of Galton and Chapman in 1866, and of the Swedish hunter Anderssen in 1855, extended the information then to be had regarding the Protectorate. Missionaries, English traders, and hunters afterwards entered the Protectorate, and there is no doubt that during their travels they searched for mineral deposits. This fact is proved by the number of English names borne by mines mentioned on the older maps of the country, *e.g.* the Sinclair Mine (North and South), the Stanley Mine, the Campbell Mine, the Palgrave Mine, the Matchless Mine, the Hope Mine, the Pot Mine, and the Ebony Mine.

2. **Mining Companies.**—As soon as some appreciable information of the country was gained, capital from the Cape Colony, as well as from the former Republics of the Transvaal and the Orange Free State, was invested in prospecting and exploring work in the territory. Companies such as the Matchless Estate and Mining Association, the Kharaskhoma Syndicate (now South African Territories, Ltd.), the Great Western Syndicate, the Otjimakoko Gold Mining Company, the Omaruru Gold Mining and Exploration Company (I. W. Stanley), the Great Oasis Syndicate, the Great Namaqualand Exploration Company, and the Walvis Bay Copper Company, were formed. In addition, a few German concerns, viz., the Lilienthal Syndicate, the Deutsch Afrikanische Minen-Gesellschaft, and others commenced working.

At the time of, and since, the annexation of the country by Germany, the greater part of it was held by large companies holding concessions in regard to mining rights.

These were :—

(1) The Deutsche Kolonial-Gesellschaft in the west, along the coast from the Orange River to the southern boundary of the Kaokoveld, the Ugab River;

(2) The Kaokoland-und-Minen-Gesellschaft, from the Ugab River to the northern border (Kunene River);

(3) The South African Territories, Ltd., in the south-east, *i.e.* the areas of the Hottentot tribes known as the Bondelswartz, Veldschoendragers, and the Zwartmodders.

(4) The Hanseatische Minengesellschaft in the centre of the country, *i.e.* the area of the Rehoboth Bastards and of the Khauas-Hottentots;

(5) The South-West Africa Company, Ltd., with their offshoots, the Otavi Mines and Railway Company and the Otavi Exploring Syndicate, Ltd., in the north, in Damaraland, and Amboland.

Only in a few stretches between the areas held by the companies were the mining rights held by the Government.

Some of these companies did not permit any prospecting, while others allowed prospecting only under difficult conditions. Only in 1908 the Deutsche Kolonial-Gesellschaft, and in 1913 the others, with the exception of the South-West Africa Company, accepted the Imperial Mining Ordinance of 1905, and granted general freedom of prospecting and mining in their respective areas. It can be understood that, owing to the want of uniformity of mining laws, the opening up of the mineral resources was greatly hampered throughout the territory. Further impediments arose through the various native rebellions, and the Herero War, which lasted from 1904 to 1907. In November, 1920, the mining rights of these companies were cancelled and the provisions of the Imperial Mining Ordinance of 8th August, 1905, as amended by Proclamation No. 24 of 12th December, 1919, were applied without modification or restriction throughout the whole territory.

Whilst in the Union many official mining geologists, private geologists, and skilled miners have done valuable exploring and prospecting work for decades, not much could be done in the territory in this direction, as it was only since 1907 that two official geologists were employed. In addition, there was not the right stamp of skilled prospector. Owing to the barren and waterless nature of large portions of the country, such as the Namib desert, parts of the Kaokoveld, the Caprivi-zipfel, the Sandveld, and the Kalahari, vast areas have not been prospected at all. Nevertheless, comparatively speaking, a great deal of prospecting has been done, and encouraging results have been obtained, particularly in regard to copper (with zinc and lead), diamonds, tin, vanadium, and marble.

3. **Copper.**—Copper can be traced throughout the whole country, from the Orange River in the south to the Grootfontein District in the north. It has been worked on a large scale only in the vicinity of Grootfontein and Tsumeb. This district was at one time held by the Hereros, a pastoral tribe of the Bantu race, who allowed the Ovambos to come from the north and work the copper deposits. In other areas, also, copper ores appear to have been extracted in early days by natives of unknown race. Similarly at Otjosonjati, in the centre of the Herero-land, heaps of slags of smelted copper ores were found beneath the roots of old camelthorn trees.

Not much later than 1852, when copper ore commenced to be exported from Springbokfontein, similar ores began to be exported from the territory. In the sixties of the last century, the Walvis Bay Copper Company extracted the very rich copper ores from the Matchless Mine (which penetrated down to water-level), south-west of Windhoek, and sent them via Walvis Bay to England.

Only one company, the Otavi Minen-und-Eisenbahn-Gesellschaft, produces copper at present. This company is working the mines at Tsumeb, Asis and Guchab, all of which are in the Grootfontein district. The output amounted to 122,823 tons in 1924, and averaged 13 per cent. copper, 23 per cent. lead, 6 per cent. zinc, and 6 ounces per ton silver. Lower grade ores are smelted on the property, the resultant copper lead matte having an average content of 50 per cent. copper. The Otavi Exploring Syndicate, Ltd., of Grootfontein, holds several small copper mines, but has recently restricted its operations to the exploitation

of vanadium ores. The Khan mine, which lies in the valley of the Khan, one of the tributaries of the Swakop river, has been elaborately equipped with plant, and fairly well developed. It produced for some time during the war, but had to be closed down in the beginning of 1918, owing to the fall in the price of copper and the increase in working costs.

Many other copper mines, such as Otjosonjati, Gorob, Matchless, Pot, Sinclair, Ehlers, Henderson, and Ida have been worked, and in some cases under adverse circumstances. Possibly they will be restarted if the price of copper rises and market conditions improve.

The copper ore exported in recent years was as follows :—

EXPORTS OF COPPER ORE, 1921 TO 1924.

MINES.	1921.		1922.		1923.		1924.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£	Tons.	£
Otavi-Minen-und-Eisenbahn-Gesellschaft, Tsumeb....	42,644	255,864	34,351	274,808	43,317	446,210	49,392	547,299
Otavi Exploring Syndicate, Limited, Grootfontein.....	—	—	—	—	—	—	—	—
Khan - Kupfergrube, Khan.....	—	—	—	—	—	—	—	—
Otjosonjati Minen Syndikat.....	—	—	—	—	—	—	190	2,470

4. **Diamonds.**—In the early days of the German annexation, pipes were discovered at Gibeon, Berseba, Maltahoehe and Keetmanshoop, Great Bruckaros, Hanaus, Groendoorn, Amalia, Freistadt, and Rietkuil, which were exploited by prospectors without result. Rumours of occasional finds of diamonds, as when a native was supposed to have found a stone of $2\frac{3}{4}$ carats near Berseba, and three small stones at Amkub, 55 miles W.S.W. of Gibeon, induced German capital to invest in the formation of a company to exploit the pipes. The Gibeon Schürff and Handelsgesellschaft obtained a concession for the exclusive right to prove the pipes in the Gibeon, Berseba, and Kub areas. This concession was abandoned, and in June, 1909, the areas were thrown open for pegging. The pipes were prospected systematically. The concentrates contained garnet, eclogite, diopside, ilmenite, olivine, augite, mica, diallage, zircon, bronzite, and enstatite. The work of the company in testing the blue ground proved it to be kimberlite; but, unfortunately, the main constituent, viz., the diamond, was absent.

In May, 1908, a few small diamonds were found near the railway at Kolmanskop station. Further investigation showed that there were very extensive marine and eluvial or residuary deposits in narrow strips along the coast from Bogenfels, south of Luderitz, to Conception Bay (south of Walvis Bay), all of which carried diamonds. Several companies were floated, and up to the commencement of the war diamonds to the value of about £8,500,000 were obtained by them. At the end of 1915, nine of the companies were allowed to resume work, subject to some restrictions. These companies, with their 1918 and 1919 production in metric carats, are shown in the following table :—

DIAMOND PRODUCTION, 1918 AND 1919.

	1918. Carats.	1919. Carats.
Pomona Diamanten Gesellschaft.....	136,065	187,964
Koloniale Bergbau-Gesellschaft M.B.H.....	79,552	110,041
Deutsche Diamanten Gesellschaft.....	63,945	73,188
Kolmanskop Diamond Mines, Ltd.....	43,293	43,685
Vereinigte Diamant Minen A.G.....	25,199	24,262
Diamanten Actien-Gesellschaft.....	10,499	9,696
Diamanten Abbau-Gesellschaft.....	6,041	7,816
Luderitzbuchter Bergbau Gesellschaft.....	4,680	1,149
Bahnfelder Diamant Gesellschaft.....	2,865	1,095
South-West Diamonds, Ltd.....	—	3,284
TOTAL.....	372,139	462,180

Since 1920, the rights of these companies, except the Kolmanskop Diamond Mines, Ltd., and the South West Diamonds, Ltd., have been acquired by the Consolidated Diamond Mines of South West Africa, Ltd., of Capetown.

The yearly output and value of diamonds from South West Africa during the period from 1909 up to the end of 1924 was as follows :—

PRODUCTION AND VALUE OF DIAMONDS, 1909 TO 1924.

Year.	Diamonds Received (Carats).	No. of Diamonds per Carat.	Diamonds Sold (Carats).	Price Realized per Carat.	Total Value.
				s.	£
1909–10	560,977	5·0	560,977	29·83	836,000
1910–11	798,865	5·75	798,865	26·775	1,069,000
1911–12	816,296	6·5	816,296	25·602	1,045,000
1912–13	959,965	6·09	902,157	29·36	1,324,500
1913–14	1,570,000	4·97	1,284,727	42·01	2,698,500
1914, April to end of July	438,980	—	438,980	—	1,565,322 (estimated)
			57,808	(unsold in 1912–13.)	
			285,873	(unsold in 1913–14.)	
1914, August to British Occupation	75,000	(Seitz Diamonds.)	74,040	112·3	415,652
1915, October to end of year (Pomona only)	13,409	3·59	13,409	50·7*	34,033
1916	144,920	5·02	144,920	45·3*	328,224
1917	364,761	5·56	364,761	45·7*	834,314
1918	372,139	6·02	372,139	59·0*	749,000
1919	462,180	5·33	462,180	90·9	2,081,863
1920	606,672	5·17	230,751	138·66	1,599,849
1921	171,188	6·8	122,885†	81·58	492,511
1922	144,120	7·56	297,606	53·17	791,231
1923	433,229	6·5	495,675	66·8	1,656,700§
1924	492,696	7·2	448,199	49·49	1,219,133

* Value estimated by L. Herz. † Part of 1920 production. § Estimated.

5. **Tin.**—Tin ore (cassiterite) was discovered in 1908. German prospectors were the first in the field, but did not get much support locally or in Germany. They then applied to the Cape, where various syndicates were floated to explore the claims. The Anglo-German Tins, Ltd., the De Beers Company, the Ameib Tin Company, the Tin Lands, Ltd., the South-West Africa Co., Ltd., the Otavi Exploring Syndicate, the Kolonial und Handelsbank, and the Hanseatische Minengesellschaft acquired claims from a number of small prospectors. The surface area is considerable. The largest area stretches east and south-west from the (granite) mountains of the Erongo, along the line Otjimbojo-Okawayo-Etiro-Onguati-Ameib-Davib to Spitzkop. There is a second area to the west of Okombahe (Nomtsaub, Aubinhonis, Neineis), and a third to the east of the Brand mountains.

The extraction of tin from alluvial gravels and detritus has been attended with fair success over considerable areas, in spite of the very wasteful methods of recovery adopted. The very low price of the metal considerably damped enthusiasm and enterprise for a time, but with improved conditions a large advance in production from this source may be confidently anticipated. The all-important question is that of the possible value of the innumerable tin-bearing pegmatite lodes that traverse the above areas. Most of these would undoubtedly prove quite unpayable under any circumstances, but it is hoped that some of the remainder when properly developed and tested will be found to provide the basis of a permanent tin industry. Some of the later discoveries such as those around the Paukwab mountain and in the Erongo mountain are considered particularly promising.

The following was the output from the year 1915 :—

EXPORTS OF TIN ORE, 1915 TO 1924.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1915	7·8	685	1920	166	33,200
1916	28	3,333	1921	104·4	10,950
1917	94·3	12,518	1922	259·7	28,860
1918	74·2	11,130	1923	233·3	34,995
1919	113·5	20,370	1924	209·3	31,399

6. **Marble.**—Between Swakopmund and Karibib extensive occurrences of marble are met with, which will be of increased value now that a direct route has been opened to the Union. White and coloured marble in fine quality was quarried at Karibib by the Afrika Marmor Kolonial Gesellschaft. Machinery has been erected, and railway connexion with Karibib has been opened. The stone should be greatly sought after for architectural purposes. It can also be used to a large extent by furniture makers. The marble will not, however, be of any use for statuary work. The value of the exports from 1911 to 1913 amounted to £2,512. In 1914, up to 30th June, 600 tons, to the value of £4,000, were exported. Since the outbreak of the war, no export has taken place.

The rights held by the Afrika Marmor Kolonial Gesellschaft were acquired by the S.A. Marble Company, Limited, in 1924.

The occurrence of a beautiful white greenish onyx-marble has been noted in a ravine of the Guchab-East-Mountain in the Otavi Valley. It has not yet been tested as regards payability.

7. **Gold.**—Gold ores have been discovered at many places in the territory. At Ubib, Husab, Kunjas, the Chuos Mountains, Ussis, Henderson Mine, Ehlers Mine on Aukab Farm, Buchholzbrunn, Churutabis, Kl. Kharras Mountains, Heirachabis, Kanus, Albrechts, Komandibmund, Spitzkop, near Rehoboth and Kuibis, prospecting for gold has taken place during the years preceding the war, but without satisfactory results. At Chorichas and Choabendus (Kaokoveld) the indications were considered such as to make it advisable to continue investigations. These were interrupted by the war. South of the Otavi Valley, quartz-conglomerates have been discovered, alleged to be similar to the Rand gold quartzes, and to belong to the same geological series. At Swartmodder and Natas (Rehoboth District), pegmatite veins have been found bearing scheelite and gold, the main value, however, being the scheelite.

A number of quartz and quartzite reefs have been pegged near Oudundu-Otjiwapa, Omaruru District; the values of the reefs have not as yet been properly examined; but some prospectors, at the end of 1924, commenced working the alluvial deposits in the vicinity; the output in 1924 being 147 ounces.

8. **Coal.**—As the stretch of country between the Fish River in the territory and the eastern boundary is very similar in its formation to the Karroo formation in the Union, where remunerative coal beds are found, the late German Government reserved an area of 14,000 square miles near Gibeon in which prospecting for coal was forbidden. The Government, in order to test this area in a more thorough manner than a private undertaking would be able to do, sank a borehole of 374 metres at which depth the rods got jammed. This obstruction had not been removed when hostilities commenced in 1914. The section of the borehole at Witboyvley, east of Gibeon, showed:—

Up to	80 metres	blue clay shale,
Then to	80.35 ,,	oil shale,
,,	300 ,,	mostly blue shale, sometimes grey sandstone,
,,	312–320 ,,	hard conglomerate (Dwyka),
,,	325–374 ,,	blue clay shale.

Fissure coal is found in the Fish River sandstones near Itsavisis in veins a few inches in width. The veins range in width from a few millimetres up to 75 centimetres, but the greatest width of solid coal so far struck does not exceed 25 centimetres. The material is considered to represent a carbonized asphalt.

9. **Iron.**—Extensive iron deposits are found in various parts of the territory, but owing to the distance of these occurrences from the coast and the railway, their exploitation would not prove profitable. The chief deposits have been located in the Kaokoveld. The ore here is said to contain 60 per cent. of iron, and to be free from substances which render smelting difficult. At Kalkfeld, a branch line from the Karibib-Omaruru Railway was laid to facilitate tapping an ore deposit there. The mine is being worked by the Otavi Minen-und-Eisenbahn-Gesellschaft, which uses the ore at Tsumeb in the smelting works for fluxing the lead-copper ores.

10. **Vanadium.**—Ores of this metal have been opened up in the Grootfontein District, and the export of these is becoming of increasing importance. An output of 2,122 tons was attained in 1924.

The vanadium ore exported in recent years was as follows:—

EXPORT OF VANADIUM ORE, 1921 TO 1924.

Mines.	1921.		1922.		1923.		1924.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£	Tons.	£
Otavi Mines and Railway Company.....	—	—	28	1,379	143	5,964	—	—
Otavi Exploring Syndicate, Limited....	381	19,055	682	34,115	133	6,895	249	12,961
South West Africa Company, Limited	—	—	1	57	892	46,358	1,355	70,472

11. **Other Minerals and Metals.**—Apart from the deposits already mentioned, a variety of minerals have been located throughout this territory; but in the majority of cases the prospector has merely registered the find in the Mining Office, and has not proceeded to prove the value of the discovery. Metals under this head and their location are as follows:—

Apatite—Near Haigamkhab and Rössing (Swakopmund).

Asbestos (Tremolite)—At Pforte and Karibib; Serpentine, near K.M. 15 of the Otavi Railway.

Beryl (Heliador aqua-marine)—Near Rössing and Donkerhoek (Swakopmund District), and in pegmatite veins in the Namib.

Corundum—Ariams and Khomas Mountains.

Cobalt, nickel—Areb, near Rehoboth.

Haematite (see also iron)—Fransfontein (Kaokoland and Mining Company boundary) and Schweikhardt's Brunn, 28 kiles n. of the water place Ganas Okawa, and other places in the Kaoko territory: large deposits.

Iron (see also Haematite)—Various places in the Kaokoveld, Garub Mountain, near station Garub, west of Kaukausib (District Luderitz), large deposits in the Namib between Luderitz and Swakopmund.

Limestone—Near Okahandja, Okakango.

Lead (Galena)—Duwisib, Kleinfontein South, Aiais (S.A. Territories).

Mica—Rössing and Welwitsch, near Swakopmund.

Monazite—Small traces around Erongo Mountains, together with wolframite and tantalite, and in various tin fields.

Mottramite—Near Tsumeb, Bobos, and Otavi Valley, and at Nosib and Rietfontein, near Grootfontein.

Molybdenite (minor deposits)—Near Otjozonjati, Okamuvia, Khan Mine, etc.

Nickel and Cobalt—Areb, near Rehoboth.

Oil—Found in bituminous shales in boreholes (for coal, see paragraph 8) in the District Gibeon. An assay of this oil by Dr. R. Marloth, of Cape Town, on 10th February, 1914, gives:—

	Per Cent.		Per Cent.
Mineral oil (extracted by chloroform)	24·14	Ash.....	37·20
Insoluble coaly substance.....	36·46	Moisture.....	2·12

Rock Salt—At the Kuisib River, District Swakopmund.

Rose Quartz—Near Rössing, Swakopmund.

Scheelite—Natas Mine, Windhoek, and Rehoboth boundary.

Salt—Etoscha Pan, and surrounding smaller pans, Aminuis Pan, Gobabis, etc.

Silver—The Tsumeb copper and lead ores, in Galena near Duwisib (Maltahoehe) and near Karibib.

Tantalite and Columbite—Donkerhoek, District Swakopmund, and in various tin fields.

Topaz—Many places in the Namib between Erongo Mountains and the coast, in pegmatite lodes, in eluvial and alluvial deposits.

Tourmalines (green and red)—Karibib, Swakopmund, and Omaruru Districts.

Uranium—Traces at the Ida Mine, Swakopmund District.

Wolframite—Ida Mine, Pforte, in various tin fields, South African Territories land near Klein Kharras.

Zinc—Khan Copper Mine, Tsumeb Mine.

12. **Mineral Laws of the Territory.**—The mining law in force in the territory is the Imperial Mining Ordinance of the 8th August, 1905, as amended by Proclamation No. 24 of 1919. The Ordinance applies to the following precious metals :—

Gold, silver, and platinum, both in their native state and as ores ;

Precious stones (diamonds, rubies, emeralds, and sapphires) ;

All metals not mentioned above, in their native state and as ores ;

Mica, semi-precious stones, asbestos, and fluor-spar ;

Coal, salts, and valuable earths, for example :

(*a*) Coal, brown coal and graphite ;

(*b*) Bituminous substances in solid, liquid, or gaseous state, especially petroleum and asphalt ;

(*c*) Rock salt, including other salts found in deposits of this nature, and the brine springs ;

(*d*) Earths which can be made use of on account of their sulphur contents and for the production of alum, sulphates, and saltpetre ;

(*e*) Phosphates (organic and inorganic) and guano.

(i) *Prospecting Claims.*—Prospecting is permitted practically over the whole country, where the Ordinance is in force, with the exception of the following places : public roads, public places, railways, burial places, and on all properties where, in the opinion of the Mines Department, it is not in the public interest to allow prospecting. The Mines Department also decides the distances from springs and other sources of water within which prospecting is not allowed. No prospecting is permitted under buildings and within 50 metres of these, nor in gardens and enclosed yards, unless both owner and user of the property give their sanction. The size of a precious mineral prospecting claim is 200 × 400 metres, and a base metal claim 600 × 1,200 metres, the claims being rectangular in shape.

No person may prospect in any district unless in possession of a prospecting licence issued by the mining authority or the magistrate of such district. The charge for thie licence is 2s. 6d. for each month or part of a month of the period for which the licence was issued. When a claim has been pegged, notice must be given as soon as possible to the Mines Department, the maximum time allowed between the pegging and the notification being four weeks. At the same time, prospecting fees, fixed at 10s. per month for each precious mineral and 5s. for each base mineral claim, must be paid for six months in advance, similar payments being continued to be paid in advance for corresponding periods as long as the claims are held.

(ii) *Mining Claims.*—Mining is permitted only on mining claims. Every prospecting claim can be converted into a mining claim upon application after being properly surveyed and beaconed off. The mining claim must have the shape of a rectangle, and must fall within the boundaries of the prospecting claim, the length not exceeding five times the width of the claim. After certain formalities have been gone through (such as due publication, etc.), the conversion of a prospecting claim into a mining claim takes place. Mining must be commenced within two years of the granting of the title.

(iii) *Taxes.*—The taxes on a mining claim consist of licence moneys and a royalty. The licence money for a precious metal claim is thirty shillings per hectare per annum, and for a base metal claim one shilling per hectare per annum, but not less than thirty shillings per annum. The mining tax or royalty is 2 per cent. of the gross value of the minerals at the shaft head before treatment.

The diamond tax was regulated by an Imperial Decree on the 30th December, 1912, by which the tax was fixed to be 66 per cent. of the value of diamonds, less 70 per cent. of the working expenses.

(iv) *Compensation.*—When mining on private land, the miner may be compelled to purchase the ground in case it is deteriorating in value owing to the mining operations. In any case he has to make good any damage caused. The landowner receives one-quarter of the royalty mentioned above.

§ 13. Manufacturing Industries.

Manufacturing Industries.—The following table gives particulars regarding manufacturing establishments in South West Africa in 1923–24 :—

Heading.	Stone, Clay, Earthenware, and Glass.	Working in Wood.	Metal, Engineering, Machinery, and Cutlery Works.	Food, Drink, Condiments, and Tobacco.	Vehicles.	Building and Contracting.	Other Manufacturing Processes.	Total.
Number of Establishments	4	7	15	45	13	10	17	111
Value of Land and Buildings.....£	10,100	5,085	35,122	89,567	11,835	17,689	89,282	258,680
Value of Machinery, Plant, and Tools.....£	3,175	2,910	21,720	42,711	3,997	3,529	102,737	180,779
Number of Employees—								
European.....	6	12	169	90	32	79	76	464
Other.....	71	26	146	302	36	164	109	854
TOTAL.....	77	38	315	392	68	243	185	1,318
Salaries and Wages Paid to Employees—								
European.....£	300	1,493	41,353	18,373	3,172	22,201	24,353	111,245
Other.....£	2,010	1,189	5,949	10,210	1,330	5,856	7,093	33,637
TOTAL.....£	2,310	2,682	47,302	28,583	4,502	28,057	31,446	144,882
Horse-power of Engines and Motors.....h.p.	15	56	404	501	59	18	3,545	4,598
Cost of Fuel, Light, and Power.....£	345	539	3,087	4,478	841	99	22,985	32,374
Value of Materials used—								
South African.....£	2,388	880	6,131	43,705	1,964	5,900	2,163	63,131
Imported.....£	45	8,604	10,866	24,277	4,246	22,685	9,760	80,483
TOTAL.....£	2,433	9,484	16,997	67,982	6,210	28,585	11,923	143,614
Value of Output—								
Articles Produced..£	7,170	16,344	6,065	137,021	1,583	53,845	150,185	372,213
Other Work done..£	—	100	71,475	—	14,494	14,440	4,725	105,234
TOTAL.....£	7,170	16,444	77,540	137,021	16,077	68,285	154,910	477,447
Value Added to Materials by Process of Manufacture or Treatment....£	4,737	6,960	60,543	69,039	9,867	39,700	142,987	333,833

§ 14. Commerce.

1. **Trade.**—Before the annexation by Germany, the bulk of the trade of the territory went to the Cape Colony through Walvis Bay in the west, Raman's Drift in the south, and Rietfontein in the east. Inland, it was in the hands of Cape traders, who established depots at various centres, from which they took trips in different directions, bartering their goods with the natives for cattle, ivory, ostrich feathers, and other spoils of the chase. In addition to these were others, who brought across from the Cape through Rietfontein numbers of horses, which they exchanged for cattle at a profit which seems almost incredible, inasmuch as upwards of ten head of cattle were sometimes given for a mare ; whilst their activities in fostering transactions in arms and ammunition may possibly account for the ceaseless tribal warfare that existed in those days.

With the advent of the German missionary came German competitors for this trade, and when eventually annexation took place, a policy of exclusion was adopted as far as foreigners were concerned.

The following table gives particulars regarding the trade between South West Africa and the Union since 1910 :—

VALUE OF IMPORTS FROM UNION, 1910 TO 1924.

YEAR.	IMPORTS INTO SOUTH WEST AFRICA FROM UNION.			EXPORTS FROM SOUTH WEST AFRICA TO UNION (excluding diamonds).
	South African Produce.	Imported Goods Re-exported.	Total.	
	£	£	£	£
1910	118,626	93,386	212,012	4,855
1911	121,256	73,293	194,549	1,513
1912	80,660	49,772	130,432	3,687
1913	96,659	44,369	141,028	7,554
1914	45,618	24,505	70,123	3,015
1915	190,606	244,877	435,483	12,158
1916	358,269	585,392	943,661	63,414
1917	378,352	682,772	1,061,124	49,784
1918	445,398	586,136	1,031,534	46,506
1919	449,915	685,201	1,135,116	447,627
1920	645,084	1,144,280	1,789,364	428,946
1921	371,937	487,389	859,326	303,246
1922	364,363	373,993	738,356	423,568
1923	417,825	41,454	459,279	559,777
1924	476,258	47,820	524,078	606,305

The value of diamonds exported from South West Africa has fluctuated considerably, as will be seen from the tables given under the head of "Mines."

Another export of note is live stock. Until the latter part of 1918 the border was closed and the export of cattle to the Union was prohibited. This enabled the flocks and herds to recover from the losses caused by the campaign. For details of the exports of live stock to the Union, see § 11 above.

The extent of the export trade in copper ore is indicated by the particulars given in § 12 above.

2. **Customs and Excise.**—In terms of the provisions of Act No. 35 of 1921 (Union of South Africa), the mandated territory of South West Africa is regarded for the purposes of the collection of customs and excise duties as part of the Union, and all customs and excise laws of the Union are applicable to the territory. The duties collected are paid into the Consolidated Revenue Fund of the Union, out of which fund is to be paid annually towards the cost of the administration of the territory a sum which shall approximate to the customs and excise duties paid on goods consumed in such territory after deducting therefrom a sum equivalent to the said duties on goods removed from the said territory for consumption in the Union. It is estimated that the revenue from this source should reach at least £110,000 per annum.

§ 15. Harbours.

1. **Luderitz.**—This harbour is 485 miles by sea from Cape Town. There is a well sheltered harbour, with good anchorage, and the port possesses the usual facilities for dealing with traffic. It owes its prosperity as a seaport to the discovery of diamonds in 1908 in the adjacent Kolmanskop and Pomona districts. The trade of the port is increasing and improved facilities are being provided to cope with it. A new reinforced concrete jetty, 540 feet long, has been constructed; a slipway for lifting tugs, lighters, and small craft is being provided, and a new steel lighter of 170 tons capacity has been placed in commission and another is in course of erection.

Crayfish canning has been established at this port, and considerable quantities of this article are exported to Europe.

2. **Walvis Bay.**—This port is situated in the small enclave of British territory retained when Germany annexed South West Africa. It is distant 735 miles by sea from Cape Town, and 21 miles south of Swakopmund. Walvis Bay was never developed, and served only as a detached Magistracy and Police Post for the protection of British interests.

The port has a natural and well-sheltered harbour, and its advantage over the German port of Swakopmund for the landing of troops and stores brought it into prominence as

the northern base of operations. Swakopmund has since been permanently closed as a port, and the whole of the landing and shipping work transferred to Walvis Bay, which is now a regular port of call for mail steamers of British, German, and Holland lines.

Considerable development has taken place here, and warehouses, engine sheds, dwelling-houses, etc., have been erected; whilst additional temporary wharves have been run out, and a new slipway constructed, and improved and extended goods and station yards provided. Provision has been made for the dredging of a channel and the construction of wharves to enable ships to be brought in to discharge their cargoes direct on to the wharves and load therefrom. The Rooibank water scheme has been completed, and provides a sufficient supply of water for the requirements of the port, and the new township which has been laid out. A wireless station is established near the port. A cold storage building and refrigerating plant is in the course of erection, which will be capable of handling 150 cattle and 200 to 300 sheep per day; it is the intention, when completed, to export chilled meat.

Three new steel lighters of 170 tons capacity have recently been supplied—another is under construction. A new tug, the "J. W. Herbert," has just been supplied to this port.

By Act No. 24 of 1922 Walvis Bay is administered as an integral part of South West Africa, the change being effected on the 1st October, 1922.

§ 16. Railways and Roads.

1. **German Railway System.**—Immediately prior to the outbreak of hostilities the railway system in the territory then known as German South West Africa comprised the following:—

State Railways—	Miles.	Chains.
(*a*) Broad Gauge:		
Karibib to Keetmanshoop	432	4
Luderitz to Keetmanshoop	226	51
Seeheim to Kalkfontein	111	44
(*b*) Narrow Gauge:		
Swakopmund to Karibib	112	61
†Swakopmund to Tsumeb	359	75
†Otavi to Grootfontein	57	—
‡Otjiwarongo to Outjo	21	76
Kalkfeld to Iron Mine	6	66
Rehoboth Station to Village	7	54
TOTAL	1,336	31
Private Lines—		
Narrow Gauge:		
Kolmanskop to Bogenfels	74	—
Arandis to Khan Copper Mine	6	60
Karibib to Marble Quarry	7	46
Otavi Mining Co.	9	54
TOTAL	98	—
GRAND TOTAL	1,434	31

These railways were constructed at varying intervals between 1903 and 1915, the first construction being that of the Otavi Railway Co. in 1903.

2. **Railway Extension.**—When the invasion by the Union military forces became imminent, the German Command pulled up the section of the State railway line from Swakopmund to Rössing—approximately 25 miles across the Namib desert—with a view to retarding the advance of the Union troops, and during the whole of the campaign an immense amount of damage was done to the permanent way and bridges throughout the country by the German troops in their retreat before General Botha's forces.

The work of connecting the Union railway system with the German terminus at Kalkfontein (South), with a view to expediting the advance of the Union forces and securing direct lines of communication, was rapidly pushed forward, and the whole of the line from Prieska to Kalkfontein—a distance of 315½ miles—was completed between September, 1914, and June, 1915, including a delay of about four months owing to floods, which prevented the construction of the Orange River bridge.

† Constructed and worked by the Otavi Railway Co. until 1913, when the German State Government bought out the Company.

‡ Commenced after the outbreak of the war and work continued until April, 1915.

A short line was also run by the Northern Force from Walvis Bay (British) to Swakopmund—21 miles 2 chains—and the Otavi Company's line from Swakopmund was converted from 2′ gauge to 3′ 6″ to Karibib by the Railway Engineers Corps, thus ensuring a standard gauge from Walvis Bay throughout the conquered territory to the Union.

The remainder of the 2′ gauge German State Railway from Rössing to Karibib, which had been left intact by the enemy, was pulled up shortly after the cessation of hostilities by the Union railway authorities.

3. **Organization under Union Railway Management.**—The railways in South West Africa were incorporated in the Union system from the 1st April, 1922, under the administration of a Divisional Superintendent. In addition, the control of the Divisional Superintendent extends over the Union sections Walvis Bay to Swakopmund (border) and De Aar (exclusive) to Nakop (border). The total mileage of the South West Africa railway system is shown hereunder :—

	Miles.	Chains.
Union Lines—		
Broad Gauge :		
Walvis Bay to Swakopmund Border	20	2
De Aar to Nakop Border	343	54
TOTAL	363	56
South-West Territory Lines—		
Broad Gauge :		
Nakop (border) to Swakopmund	769	24
Seeheim Junction to Luderitz	197	52
Gobabis Junction to Ondekaremba	29	69
Narrow Gauge :		
Usakos* to Tsumeb	257	44
Otavi to Grootfontein	57	—
Otjiwarongo to Outjo	45	73
Kalkfeld to Iron Mine†	6	66
TOTAL	1,364	8
GRAND TOTAL	1,727	64

At the outset the task of making good the large amount of damage occasioned by the war had to be undertaken in order to secure a regular supply of foodstuffs and stores for the British garrison troops and German population. Temporary repairs to buildings, bridges, and track were speedily carried out, and within a very short period a regular passenger and goods service was established with the Union. The estimated damage suffered by the railway system amounted to approximately £350,000. Up to the end of March, 1922, £125,428 were expended on the work of permanently restoring the damage, whilst £25,000 had been expended in new and additional works, such as quarters for staff, buildings, machinery, etc. Since March, 1922, the works have been carried on under the ordinary working votes, and the expenditure in connection with the work of restoring damage done by troops under war conditions is not now recorded separately.

No actual development of the railways in regard to construction of feeder lines, etc., could be undertaken until the destiny of the country was finally decided upon, and until the known mineral resources of the territory were properly exploited and developed. It is anticipated that some time must elapse before any definite steps can be taken in this direction. A branch line, however, extending from a point near Windhoek Station to Ondekaremba was sanctioned, and was completed towards the end of 1924, the cost being—

	Miles.	Chains.	£
Windhoek (Gobabis Junction) to Kapp Farm	17	40	129,463
Kapp Farm to Ondekaremba‡	12	49	61,720

Commercially, considerable activity has been manifest in live stock traffic to Union markets, with limited shipments of cattle to oversea markets, and a very firm business established in slaughter stock to the Union during the past three years, necessitating the provision of additional facilities at the principal loading depots for handling the traffic.

* From Usakos to Kransberg the traffic is operated over a tri-rail, the three rails serving standard and narrow gauges. † Private siding.

‡ An extension of the line from Ondekaremba to Witvlei, a distance of 86 miles, at an estimated cost of £348,000, has been sanctioned.

A heavy export trade in copper ore from the Otavi Exploring Syndicate, Limited, has been maintained. During the financial year ended 31st March, 1925, 53,340 tons of copper ore were railed from Tsumeb Station to Walvis Bay for shipment. The smelting on a fairly large scale has created a demand for coal and coke traffic, which is conveyed by rail from Natal mines in the Vryheid district, to Tsumeb, a haul of approximately 2,044 miles.

Iron ore mined at the Kalkfeld iron mines is hauled to Tsumeb to meet the demand created at that place, and for the financial year ended 31st March, 1925, 13,380 tons were hauled, as compared with 17,518 tons for the year ended 31st March, 1924.

Owing to the paucity of the population and distance from suitable markets, very little, if any, development in agriculture has been undertaken. Small quantities of skins, hides, and wool are dispatched to the Union, and an increasing demand for a very good quality of marble from the Karibib quarries has been observed.

Undoubtedly the discovery of a satisfactory supply of coal in the Territory would give an impetus to local industries and decrease working costs for the Railway and other Government Departments, with the possibility of creating a demand at Walvis Bay and Luderitz for bunkering and export trade.

In terms of Act No. 20 of 1922, the South West Africa railways became part of the Union system, both as regards administration and financial organization, and are worked on Union lines under the control of a Divisional Superintendent, with headquarters at Windhoek.

4. **Roads.**—At the time of the annexation of the country by the German Government it was fairly well served with roads. There were two main roads running inland from the south. One crossed the Orange River at Sendling's Drift, passed over the sandy belt to Aus, where it was joined by a road from Luderitz, and ran northward through Maltahoehe to Nomtsas. There it divided, a branch going westward to Walvis Bay, and another northward through Rehoboth to Windhoek. The other road crossed the river at Raman's Drift, and passed through Warmbad and Kanus to Keetmanshoop. It was joined there by a road from Upington through Nakob, Ukamas, Davignab and Khais, and another from Rietfontein through Hasuur. From Keetmanshoop it continued through Berseba and Gibeon to Rehoboth. Another important trading route was that passing through Rietfontein and running northward through Koes and Gochas to Stamprietfontein, where it branched to the left, going through Rehoboth almost due west to Walvis Bay, and to the right through Gobabis as far as Epukiro. From Windhoek, one road went east through Osona, Otjimbingue and Haigamchab to Walvis Bay; another east through Seeis and Gobabis to Lake N'Gami; and a third northwards to Okahandja, where it divided, and the left branch ran through Omaruru, Outjo, Okahandja, to Ovamboland and Portuguese territory, whilst the right went through Waterberg to Grootfontein. There were, of course, minor roads which connected up these main routes.

In 1909, local government was granted to the different districts in the territory, and this enabled each district to elect a council, one of the chief duties of which was the maintenance and control of the district roads. These roads were maintained from funds provided by the Government. Roads within a municipal area were under the control of the municipality, which had the power of levying an income tax from the proceeds of which such roads were maintained. In addition to the proceeds of this tax, revenue from dog licences and from other sources was available for the maintenance of municipal roads. Roads other than the two classes above mentioned were those usually connecting one farm with another, and were called communication roads. They were made and maintained by private enterprise.

Along district roads an outspan place of 494 acres in extent was provided at intervals of every 20 miles, whilst travellers were entitled to grazing for 500 metres on each side of it. If the road passed through private property the owner of which refused to allow any outspanning thereon, he was bound to place notices to that effect at the spots where the road entered his property. The Waterberg district is the only one where this obligation has been carried out to some extent. Numerous other provisions relating to roads are contained in the Road Ordinance of 1912.

§ 17. Posts, Telegraphs, and Telephones.

1. **Organization and Finance.**—The number of Post and Telegraph Offices open at 31st March, 1925, was 96; also private bag services, 175. There are 27 Money Order and Savings Bank Offices.

Post, telegraph, and telephone facilities are identical with those prevailing within the Union of South Africa, with the exception that Agricultural parcel post business is not undertaken.

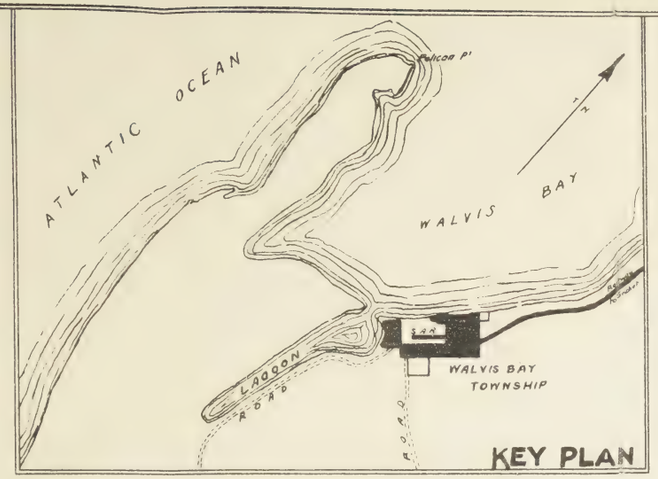
The rates of postage, inland telegraph*, and cable rates are the same as within the Union.

The Union Act, No. 10 of 1911, has not been applied to South West Africa.

* The rates charged for telegrams handed in for disposal within the Territory was reduced on the 25th July, 1926, to 1s. for twelve words and 1d. for each additional word.

IS BAY
1200
1800
2400 Feet
LAGOON
True
North
Channel 500' Wide

WALVIS BAY



NATIVE LOCATION

CEMETERY

MAST

WIRELESS STATION

Feet 600 300 0 600 1200 1800 2400 Feet

The financial progress of the Department may be deduced from the statement of Expenditure and Revenue set forth hereunder :—

Year	Expenditure.	Postal Revenue.	Customs Collections on Parcels and Sale Revenue Stamps.
	£	£	£
*1915–16	14,527	11,056	219
1916–17	34,788	21,316	1,171
1917–18	28,393	23,117	2,449
1918–19	30,429	26,397	2,769
1919–20	32,991	32,508	15,619
1920–21	48,961	42,637	12,021
1921–22	52,410	41,530	20,828
1922–23	50,466	41,112	15,156
1923–24	47,088	67,740	13,742
1924–25	52,207	56,923	15,263

* Six months, 1st September, 1915, to 31st March, 1916.

2. **Postal Traffic.**—The traffic under the various classes of postal business may be gauged from the subjoined tables :—

POSTAL STATISTICS, 1915 TO 1924.

Year.	Posted.	Transit.	Received.
	No.	No.	No.
1915	1,662,180	577,096	1,519,856
1916	2,059,772	967,876	2,299,128
1917	1,334,320	635,128	1,997,268
1918	1,693,692	739,076	2,039,284
1919	1,644,656	1,007,864	1,971,632
1920	2,017,600	936,780	2,770,364
1921	2,082,132	1,506,648	2,963,220
1922	1,967,836	1,250,496	2,783,300
1923	2,053,116	1,380,392	2,980,796
1924	2,434,172	1,261,624	3,438,864

PRIVATE BOXES RENTED AND UNLET.

Year.	Boxes Rented.	Boxes Unlet.
1915	294	1,011
1916	499	806
1917	521	652
1918	535	638
1919	552	710
1920	712	560
1921	875	429
1922	884	480
1923	846	632
1924	864	644
1925	990	605

3. **Savings Banks.**—In order to furnish Savings Bank facilities—the Union Post Office Act, No. 10 of 1911, being inoperative—Proclamation No. 8 of 30th June, 1916, made provision for Post Office Savings Bank business as from 1st July, 1916, with transfers at par between the Union of South Africa, the United Kingdom, Southern Rhodesia, India, and the Province of Mozambique.

The interest on Savings Bank deposits is 3½ per cent. per annum. The maximum sum which a depositor may bank is £1,000, exclusive of interest. Further facilities were arranged from the 1st November, 1918, whereby the territory and the Union arranged to accept deposits and withdrawals on behalf of each Administration, and to encash circular warrants.

SAVINGS BANK ACCOUNTS, 1916 TO 1925.

Year.	Opened.	Closed.	Remaining Open at End of Year.	Deposits.	Withdrawals during Year.	Amount Due to Depositors.
				£	£	£
1916	596	127	469	19,086	5,853	13,232
1917	868	657	680	31,833	27,824	17,241
1918	598	510	768	26,935	21,754	22,422
1919 (Jan. to March)	127	86	809	8,323	6,423	24,323
1919–20	478	436	851	25,223	28,320	21,225
1920–21	383	286	948	26,894	23,333	24,785
1921–22	314	243	1,019	22,373	24,585	22,573
1922–23	298	215	1,102	24,531	20,515	26,588
1923–24	447	222	1,327	42,560	28,635	40,514
1924–25	1,034	290	2,071	87,278	43,810	79,128

4. **Money and Postal Orders.**—Money Order facilities were introduced on the 1st January, 1917 and extended to all countries embraced in the Universal Postal Union.

The rates of commission are :—

For South West Africa, 6d. per first unit of £4. and 3d. per unit thereafter. Maximum for one order £40.

For Union of South Africa, 6d. per unit of £4. Maximum for one order, £40.

For Rhodesia and Province of Mozambique, 9d. per unit of £4.

For payment elsewhere, 1s. per unit of £4.

MONEY ORDER ISSUES AND PAYMENTS.

Period.	Issues.		Payments.	
	No.	Amount.	No.	Amount.
		£		£
1917 (July to December)	8,452	67,523	3,186	30,811
1918	9,270	68,886	3,669	34,684
1919 (January to March)	2,483	20,556	1,034	10,587
1919–20	10,285	85,747	4,673	48,145
1920–21	12,001	102,186	4,722	52,924
1921–22	13,797	100,864	6,103	55,584
1922–23	14,135	95,818	6,310	55,023
1923–24	17,590	115,429	7,828	68,611
1924–25	23,969	149,880	9,886	85,264

POSTAL ORDER SALES AND PAYMENTS.

Period.	Issues.		Payments.	
	No.	Amount.	No.	Amount.
		£		£
1916 (April to December)	*	38,472	*	7,645
1917	33,902	20,918	9,314	5,831
1918	25,897	15,803	8,068	4,973
1919 (January to March)	6,726	3,596	2,645	1,543
1919–20	26,449	14,993	9,334	5,898
1920–21	26,818	16,239	10,044	5,782
1921–22	27,539	16,854	11,178	6,280
1922–23	29,433	16,213	11,440	6,298
1923–24	37,618	20,059	14,899	8,059
1924–25	45,631	23,425	17,859	9,186

* Not available.

5. **Telegraphs.**—The mileage of telegraph lines and routes is as follows:—Telegraph working, 1,400 miles; telegraph-telephone working, 2,350 miles; rural telegraphs and telephones, 595 miles; farm lines, 570 miles; telegraph superimposed, 1,160 miles; total, 6,075 miles of wire available for communication either by telegraph or telephone.

The telegraphic traffic is shown hereunder:—

TELEGRAPH TRAFFIC, 1915 TO 1925.

Year.	Total Forward.	Transmitted.	Received.	Total Dealt With.
1915	146,165	298,220	148,344	592,729
1916	192,157	268,204	173,954	634,315
1917	177,052	321,243	159,420	657,715
1918	159,426	295,018	141,825	596,269
1919 (January to March)	35,326	68,318	32,086	135,730
1919–20	195,685	349,080	176,287	721,052
1920–21	187,274	347,952	171,394	706,620
1921–22	150,441	277,588	139,234	567,263
1922–23	139,164	266,986	123,036	529,186
1923–24	155,329	294,912	125,048	575,289
1924–25	146,280	305,722	121,630	573,632

Year.	Paid Value.	Railway Traffic.	Government Traffic.	Total.
	£	£	£	£
1915	5,337	1,391	8,953	15,681
1916	9,251	2,252	6,588	18,091
1917	9,998	726	4,043	14,767
1918	10,052	130	2,955	13,137
1919 (January to March)	2,222	41	660	2,923
1919–20	13,145	129	4,329	17,603
1920–21	15,426	154	2,492	18,072
1921–22	12,398	140	1,999	14,537
1922–23	11,140	109	2,316	13,565
1923–24	11,162	39	2,327	13,528
1924–25	11,039	20	619	11,678

CABLE TRAFFIC, 1915 TO 1925.

Year.	Number of Messages.	Paid Value.
		£
1915	—	328
1916	408	802
1917	331	526
1918	354	586
1919 (January to March)	110	214
1919–20	2,333	4,661
1920–21	5,161	8,058
1921–22	4,535	5,485
1922–23	4,314	4,286
1923–24	4,483	4,399
1924–25	5,545	5,048

6. **Telephones.**—German telephone rates in South West Africa have not been disturbed. The present rates are :—

Business Connexion	£10 0 0 per annum.
Residential	7 10 0 per annum.
Rural Party Lines, per Subscriber	15 0 0 per annum.
Indoor Connexions	5 0 0 per annum.
Outdoor Extensions, per ¼ mile	1 5 0 per annum.
Trunk Tariff (Flat Rate)	0 1 6 per conversation of three minutes.
Party or Rural Line where no pre-war contract exists	£3 per mile for single wire. £4 per mile for metallic circuit, plus £1 for each telephone installed. Total rental divided *pro rata* amongst number of participants.
Transfers	Indoor, in same room, 7s. 6d. Indoor, room to room, 15s. Outdoor, £2.

The rural party-line rental is £15 per annum, irrespective of the number of participants or the distance.

Exchanges have been established at Aroab, Aus, Bassermann, Berglands, Bethanie, Brakwasser, Davignab, Dorbabis, Gibeon, Gobabis, Grootfontein, Hofmeyr, Hohewarte, Kalkfeld, Kalkfontein South, Kalkrand, Kapps Farm, Karibib, Keetmanshoop, Kiries West, Klein Karas Rail, Klipdam, Kolmanskop, Kub, Kuibis Rail, Leutwein, Luderitz, Maltahoehe, Mariental, Mier, Narubis, Neuheusis, Okahandja, Okasewa, Okasise, Omaruru, Omitara, Ondekaremba, Otavi, Otjikururume, Otjivero, Otjiwarango, Outjo, Rehoboth, Rietfontein, Seeis, Seeheim, Spitzkoppe, Stamprietfontein, Swakopmund, Tsumeb, Ukamas, Usakos, Walvis Bay, Warmbad, Waterberg, Wilhelmstal, Windhoek, Witvley. Trunking facilities have been extended throughout the territory, also as far as Upington. The speech efficiency of superimposed lines is approximately 400 miles. The telephone exchange system in operation totals 704 miles.

TELEPHONES, 1915 TO 1925.

Year.	Exchange Connexions.	Extensions.
	No.	No.
1915	175	13
1916	311	101
1917	417	100
1918	459	113
1919	462	128
1920 (31st March)	554	139
1921 (31st March)	663	154
1922 (31st March)	615	150
1923 (31st March)	689	161
1924 (31st March)	698	174
1925 (31st March)	727	189

7. **Wireless Telegraphs.**—The Walvis Bay Radio Station has a normal day range of 1,250 miles and 2,500 miles at night. The station is equipped with valve receiving apparatus, and deals with all radio traffic for South Africa north of latitude 30° south.

The following figures show the radio traffic since the opening of the station :—

	Messages.	*Words.*	*Value.*
September, 1922, to December, 1923	3,160	41,171	£1,029
1924	8,191	100,497	£2,512

§ 18. Finance.

1. **Public Revenue.**—The principal source of revenue in the territory is that derived from the tax on the diamond mines at Luderitz. The assessment of this tax has been completed in the terms of the German law, which provides, broadly, that the Government receives 66 per cent. of the gross proceeds realized by the sale of diamonds, less 70 per cent. of the working costs. The next largest item of revenue is that collected under the head of Customs and Excise.

Particulars are given hereunder of Revenue received during a series of years :—

REVENUE, APRIL, 1919, TO MARCH, 1925.

DESCRIPTION.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
	£	£	£	£	£	£
Excise	9,927	4,889	3,026	7,950	155,430	121,025
Customs	75,233	121,630	71,730	69,987		
Posts and Telegraphs	32,508	42,687	41,483	40,974	66,740	56,923
Mining	367,308	1,201,382	547,419	591,385	459,942	278,303
Licences	9,079	13,866	24,133	17,167	23,274	24,815
Stamp Duties and Fees	15,076	10,542	17,772	14,181	11,521	11,519
Estates and Transfer Duties	1,438	8,433	17,373	10,242	9,379	11,782
Native Taxes	1,815	3,388	2,108	1,589	1,879	—
Land Revenue	18,536	15,770	13,061	12,235	14,205	19,722
Rents of Government Property	2,637	8,928	8,351	6,742	15,308	13,684
Departmental Receipts	34,487	12,565	18,878	14,024	76	—
Fines and Forfeitures	6,930	4,670	4,486	3,680	11,074	15,795
Sale of Crown Lands	20,096	27,847	42,535	17,791	4,716	5,144
Forest Revenue	—	375	119	61	22,420	27,519
Miscellaneous	48,423	124,244	58,450	24,445	16,126	36,607
Interest on Loans, etc	—	—	—	21,345	37,148	29,277
TOTAL £	643,484	1,601,216	870,924	853,798	849,238	652,115

2. **Public Expenditure.**—The main item of expenditure to 31st March, 1920, was that on the Garrison, which included the Police Force, and amounted to £2,421,617 from August, 1915, to March, 1920. All other heads of Administrative expenditure for the same period together amounted to £618,197, making a combined total of £3,039,814. The total expenditure to 31st March, 1925, was £7,797,471.

Particulars are given hereunder as to expenditure during a series of years :—

EXPENDITURE, APRIL, 1919, TO MARCH, 1925.

Description.	1919-20.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
	£	£	£	£	£	£
Administration	30,090	288,954	†62,824	36,608	38,606	64,427
Native Affairs	8,738	12,426	12,854	15,406	16,949	15,094
Education	17,993	34,900	46,154	58,658	72,587	85,321
Mines	2,279	4,856	4,252	3,870	4,222	4,035
Justice	26,560	50,195	48,233	46,726	47,808	47,808
Prisons	9,420	20,520	18,561	17,712	18,549	17,101
Customs and Excise	788	1,735	2,555	2,387	2,431	2,836
Posts and Telegraphs	33,363	49,427	52,668	50,364	47,088	52,207
Public Works *	44,082	138,590	101,041	92,491	93,456	109,017
Agriculture	17,359	27,832	42,270	18,747	37,792	54,038
Garrison	521,202	22,748	—	—	—	—
Audit	—	1,536	1,310	1,479	2,017	1,696
Irrigation	—	41,606	61,938	83,423	76,003	65,352
Lands, Deeds, and Surveys	—	37,015	46,121	35,603	29,482	27,583
Public Health	—	16,521	18,494	16,235	15,094	15,405
S.W.A. Police	—	180,518	154,678	138,042	123,258	126,778
Defence	—	—	3,804	93	84	1,957
Public Debit	—	—	—	7,712	83	3,403
Pensions and Gratuities	—	—	—	337	3,552	19,094
Ordinary Expenditure £	712,074	929,379	677,757	625,893	629,061	713,152
Capital Expenditure £	—	236,585	439,011	208,457	179,152	119,210
TOTAL £	712,074	1,165,964	1,116,768	834,350	808,213	832,362

* Also includes Irrigation to 1919–20. † Includes war losses compensation.

3. **Financial Organization.**—The territory under the German Government had not reached the independent stage of British self-governing colonies. The Landesrath was merely an advisory body, and all Fiscal Edicts were issued by the Governor. The estimates of Revenue and Expenditure prepared in the territory required the sanction of the Imperial Reichstag. The supervision of the Imperial Government was held to be justified on the grounds that Imperial grants were made annually to the Protectorate, although these grants merely approximated the cost of the military establishment. The Imperial Government guaranteed the loans issued for the purpose of building railways. The control of all revenue and expenditure, including that of the Railways, but excluding Post and Telegraph Revenue, was exercised by the *Finanz Referent* under the Governor. The Post and Telegraph Department was a branch of the Imperial Department, and quite distinct from the Protectorate Administration. Certain Revenues were assigned by the Governor to Municipal and District Councils. These included Dog Tax, Liquor, Bar, Hotel, and Trade Licences. The local authorities were also empowered to raise funds for local purposes by means of an Income Tax.

After the British occupation, changes were made to bring the administration into line with the administration of the Union, but no fundamental changes were made in the taxation laws. The Administration was financed by grants from the Union War Loan Vote to March, 1920. Since that date the Administration has been financed from revenue raised in the territory. The Railways were taken over and financed by the Railways and Harbours Department of the Union ; but the German tariff of charges was retained. Union Act No. 20 of 1922 enacts that the Government railways and harbours in the territory, as they existed on the 10th January, 1920, should become from that date vested in the Railway Administration of the Union as part of the Union system. The loss arising from the working of the railways from 1st August, 1915, to 31st March, 1922, was made chargeable to the Union Railways and Harbours Capital Account, while future receipts and expenditure will be charged to the Union Railways and Harbours Fund. The territory was thus relieved of the burden of financing the railways and maintaining the high rates levied under the German laws. Considerable reductions have already been made in the through passenger fares to the Union and in goods traffic rates.

The Municipal Councils continued to exist, and the German practice of assigned revenues was followed by the British Administration. The District Councils were abolished.

Generally, the revenues payable under the German laws have been collected and utilized in part payment of the cost of administration. The Customs revenues have been collected and retained in the Union ; but from the 1st April, 1919, these were credited to the territory. The Union Treasury was authorized to exercise financial control in the territory.

The provisions of the *Exchequer and Audit Act*, 1911, of the Union of South Africa were applied to South West Africa as from the 1st April, 1921. The financial regulations framed under the Act were also applied as far as they could be made applicable, and financial regulations to meet local requirements were also issued.

4. **Banking Facilities.**—Immediately after the occupation the National Bank and the Standard Bank of South Africa both established branches in the territory. These institutions have branches in all the larger towns. The German banks continued to carry on their business. The principal one was the Deutsche-Afrika Bank, with branches at Windhoek, Swakopmund, and Luderitz, liquidated in 1922.

The remaining German banks, more correctly described as mortgage banks and co-operative farmers' associations, operated on a very small scale. They consisted of the Genossenschafts at Windhoek, the Spar und Darlehens Kasse at Gibeon, the Nord Bank at Omaruru, and the Bodenkredit Gesellschaft (later the Commercial Bank of South Africa, Ltd.), with branches at Windhoek, Luderitz, and Swakopmund. Of these the Genossenschafts at Windhoek, the Nord Bank at Omaruru and the Bodenkredit Gesellschaft were also liquidated in 1922.

§ 19. Cost of Living.

Cost of Living.—So far as South West Africa is concerned, the collection of retail price data is undertaken by the Union Census and Statistics Office. Quotations are obtained monthly from retail merchants in six towns of the Territory, and price indexes are compiled in respect of each quarter. For obvious reasons it was impossible to obtain price data in respect of this Territory prior to 1920 and, for comparison purposes, what is utilized as a base for calculation purposes is the weighted average for the nine principal towns in the Union for 1910.

The following table contains price indexes for food for the years 1920 to 1925 in respect of Windhoek and the weighted average of the six towns.

PRICE INDEXES FOR FOOD, 1920, TO FOURTH QUARTER, 1925.

(Basis: Weighted average for nine principal towns in the Union in 1910 = 1000.)

Year.	Windhoek.	South West Africa, Weighted Average Six Towns.
1920	1989	2027
1921	1737	1785
1922	1453	1437
1923	1381	1387
1924	1353	1374
1925 (First Quarter)	1390	1398
(Second Quarter)	1466	1429
(Third Quarter)	1455	1412
(Fourth Quarter)	1428	1408
(Year)	1435	1412

In the case of items other than food it has not been found practicable to secure the necessary data for the compilation of indexes.

CHAPTER XXVIII.

PERSONS AND EVENTS.

§ 1. Executive and Parliamentary Representation.

1. The following lists contain the names of the various persons concerned in the government of the country. For information on the subject of the Constitutional Development, Parliamentary Institutions, and Public Administration of the Union, reference should be made to Chapter II.

2. **The Governor-General.**—The following have been successively Governors-General of the Union :—

Name.	Date of Royal Commission.	Date of Assumption of Office.
Right Hon. Viscount Gladstone, P.C., G.C.B., G.C.M.G., G.B.E.	30th March, 1910.....	31st May, 1910.
Right Hon. Viscount (now Earl) Buxton, P.C., G.C.M.G.	14th May, 1914.....	8th September, 1914.
H.R.H. Prince Arthur of Connaught, K.G., K.T., G.C.M.G., G.C.V.O., C.B., A.D.C.	5th August, 1920.....	20th November, 1920.
Major-General the Right Hon. the Earl of Athlone, G.C.B., G.C.M.G., G.C.V.O., D.S.O.	21st November, 1923..	21st January, 1924.

The personal staff of His Excellency the Earl of Athlone is as follows :—
Comptroller and Private Secretary : Captain R. C. Hargreaves, M.V.O., M.C.
Aides-de-Camp : Lieut.-Commander G. A. V. Hawkins, M.V.O., D.S.O., R.N.; Captain J. N. P. Lascelles; and Captain G. Fielden.

3. **The Executive Council.**—The Governor-General, together with the Ministers named in the following list, constitutes the present * Executive Council :—

General the Hon. J. B. M. Hertzog, Prime Minister and Minister of Native Affairs.
Hon. T. J. de V. Roos, K.C., Minister of Justice.
Hon. Dr. D. F. Malan, Minister of Interior, Public Health, and Education.
Colonel the Hon. F. H. P. Creswell, Minister of Defence.
Hon. N. C. Havenga, Minister of Finance.
Hon. F. W. Beyers, K.C., Minister of Mines and Industries.
Hon. C. W. Malan, Minister of Railways and Harbours.
Hon. P. G. W. Grobler, Minister of Lands.
General the Hon. J. C. G. Kemp, Minister of Agriculture.
Hon. T. Boydell, Minister of Labour.
Hon. W. B. Madeley, Minister of Posts and Telegraphs and Public Works.

4. **Members of the Senate.**—The following is a list of the members of the Senate :—

NOMINATED SENATORS.

†Brig.-Gen. the Hon. D. J. E. Opperman.
†The Hon. A. W. Roberts, D.Sc., F.R.S.E., F.R.A.S.
The Hon. Sir Charles G. Smith, K.C.M.G.
†Col. the Hon. Sir Walter E. M. Stanford, K.B.E., C.B., C.M.G.
The Hon. J. P. Steyl.
†The Hon. H. G. Stuart (*Deputy-President and Chairman of Committees*).
The Hon. P. J. van der Walt.
The Hon. H. C. van Heerden (*President*).

* At 30th September, 1926.

† Selected in terms of section 24 (ii) of the South Africa Act on the ground mainly of their thorough acquaintance, by reason of their official experience or otherwise, with the reasonable wants and wishes of the coloured races in South Africa.

ELECTED SENATORS.

CAPE OF GOOD HOPE.

The Hon. A. J. Fuller.
The Hon. Sir Jacobus A. C. Graaff, K.C.M.G.
The Hon. C. J. Langenhoven.
The Hon. J. P. Malan.
The Hon. O. A. Oosthuizen.
The Hon. C. A. Schweizer.
The Hon. C. E. Tod.
The Hon. A. H. Watkins, M.D.

NATAL.

The Hon. F. O. F. Churchill.
The Hon. W. F. Clayton.
The Hon. W. Cochrane.
The Hon. F. Greaves.
The Hon. J. Schofield.
The Hon. J. J. Uijs.
[Two vacancies.]

TRANSVAAL.

The Hon. N. J. de Wet, K.C.
The Hon. J. L. Grobler.
The Hon. R. A. Kerr.
The Hon. G. Munnik.
The Hon. F. W. Reitz.
The Hon. W. K. Tucker, C.M.G.
The Hon. J. D. F. Briggs.
The Hon. A. D. W. Wolmarans.

ORANGE FREE STATE.

The Hon. W. J. C. Brebner.
The Hon. D. J. J. Malan.
The Hon. C. A. van Niekerk.
The Hon. H. Potgieter.
The Hon. N. W. Serfontein.
Gen. the Hon. W. J. Wessels.
The Hon. H. F. de Wet.
[One vacancy.]

5. **Members of the House of Assembly.**—The following is a list of the Members of the House of Assembly as elected at the general election in June, 1924, and at subsequent by-elections :—

MEMBERS OF THE HOUSE OF ASSEMBLY.

Cape of Good Hope.

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Albany	R. H. Struben, O.B.E.	Humansdorp	Hon. C. W. Malan.
Albert	L. J. Steytler.	Kimberley	Sir E. Oppenhiemer, Kt.
Aliwal	C. A. A. Sephton.	King William's Town	Maj. R. Ballantine.
Barkly	W. B. de Villiers.	Ladismith	J. J. M. van Zyl.
Beaconsfield	Col. Sir David Harris, K.C.M.G.	Liesbeek	C. Pearce.
Beaufort West	P. N. Basson.	Malmesbury	P. A. Bergh.
Bechuanaland	I. van W. Raubenheimer.	Namaqualand	J. P. Mostert.
Caledon	Hon. C. J. Krige.	Newlands	R. Stuttaford.
Calvinia	Hon. Dr. D. F. Malan.	Oudtshoorn	S. P. le Roux.
Cape Town (Central)	Hon. J. W. Jagger.	Paarl	Dr. A. L. de Jager.
Cape Town (Gardens)	C. W. A. Coulter.	Piquetberg	J. H. H. de Waal.
Cape Town (Hanover Street)	M. Alexander, K.C.	Port Elizabeth (Central)	Col. the Hon. Deneys Reitz.
Cape Town (Harbour)	Maj. G. B. van Zijl.	Port Elizabeth (South)	Sir W. MacIntosh, Kt.
Ceres	J. W. J. W. Roux.	Queenstown	L. Moffat.
Colesberg	G. A. Louw.	Riversdale	A. L. Badenhorst.
Cradock	G. C. van Heerden.	Rondebosch	R. W. Close, K.C.
East London (City)	Rev. W. W. Rider.	Salt River	W. J. Snow.
East London (North)	Brig.-Gen. the Hon. J. J. Byron, C.M.G., D.S.O.	Somerset	L. J. Vosloo.
		South Peninsula	Sir D. Chaplin, G.B.E., K.C.M.G.
Fort Beaufort	Rt. Hon. Sir Thos. Smartt, P.C., K.C.M.G.	Stellenbosch	J. P. Louw.
		Swellendam	E. Buirski.
		Tembuland	A. O. B. Payn.
George	G. F. Brink.	Three Rivers	D. M. Brown, O.B.E.
Gordonia	J. H. Conradie.	Uitenhage	F. T. Bates.
Graaff-Reinet	I. P. van Heerden.	Victoria West	F. J. du Toit.
Griqualand	L. D. Gilson.	Wodehouse	O. S. Vermooten.
Hopetown	Dr. A. J. Stals.	Worcester	C. B. Heatlie.

Natal.

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Dundee	Hon. Sir Thos. Watt, K.C.M.G.	Klip River	H. E. K. Anderson.
Durban (Berea)	J. Henderson.	Natal (Coast)	Brig.-Gen. W. Arnott, C.M.G.
Durban (Central)	C. P. Robinson.	Newcastle	O. R. Nei.
Durban (Greyville)	Hon. T. Boydell.	Pietermaritzburg (North)	T. G. Strachan.
Durban (Point)	Maj. A. M. Miller, D.S.O.	Pietermaritzburg (South)	W. J. O'Brien, O.B.E.
Durban (Stamford Hill)	F. J. Lennox.	Umvoti	Hon. W. A. Deane.
Durban (Umbilo)	G. Reyburn.	Vryheid	Hon. E. G. Jansen.
Illovo	J. S. Marwick.	Weenen	Maj. G. R. Richards.
		Zululand	G. H. Nicholls.

MEMBERS OF THE HOUSE OF ASSEMLBY—*continued*.

Transvaal.

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Barberton	W. H. Rood.	Potchefstroom	Rev. M. L. Fick.
Benoni	Hon. W. B. Madeley.	Pretoria (Central)	C. T. te Water.
Bethal	Lt.-Col. H. S. Grobler, D.T.O.	Pretoria (East)	C. W. Giovanetti, C.B.E.
Bezuidenhout	L. Blackwell, M.C.	Pretoria (West)	G. A. Hay.
Boksburg	J. J. McMenamin.	Pretoria District (North)	H. Oost.
Brakpan	R. B. Waterston.	Pretoria District (South)	Dr. H. D. van Broekhuizen.
Chrsitiana	H. H. Moll.		
Delarey	A. S. van Hess.	Roodepoort	Rev. J. Mullineux.
Denver	Col. the Hon. F. H. P. Creswell, D.S.O.	Rustenburg	Hon. P. G. W. Grobler.
Ermelo	Col.-Cdt. W. R. Collins, D.T.D., D.S.O.	Springs	J. Allen.
		Standerton	Gen. the Rt. Hon. J. C. Smuts, P.C., C.H., D.T.D., K.C.
Fordsburg	J. S. F. Pretorius.		
Germiston	G. Brown.	Troyeville	M. Kentridge.
Heidelberg	S. D. de Wet.	Turffontein	A. C. Fordham.
Hospital	H. B. Papenfus, K.C.	Ventersdorp	L. J. Boshoff.
Jeppes	H. W. Sampson, O.B.E.	Von Brandis	E. Nathan.
		Vrededorp	Dr. T. C. Visser.
Joharnesburg (North)	L. Geldenhuys.	Wakkerstroom	A. S. Naudé.
Klerksdorp	P. C. de Villiers.	Waterberg	P. W. le R. van Niekerk.
Krugersdorp	Rev. B. R. Hattingh.		
Langlaagte	J Christie.	Witbank	A. I. E. de Villiers.
Lichtenburg	Hon. T. J. de V. Roos, K.C.	Witwatersberg	Lt.-Col. N. J. Pretorius, D.S.O., D.T.D.
Losberg	G. P. Brits.		
Lydenburg	J. Nieuwenhuize.	Wolmaransstad	Gen. the Hon. J. C. G. Kemp.
Marico	Gen. J. J. Pienaar.		
Middelburg	J. D. Heyns.	Wonderboom	B. J. Pienaar.
North-East Rand	Dr. Hj. Reitz.	Yeoville	Hon. Patrick Duncan, K.C., C.M.G.
Parktown	W. Rockey, O.B.E.		
Pietersburg	J. F. T. Naude.	Zoutpansberg	O. Pirow, K.C.

Orange Free State.

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Bethlehem	Vacant.	Heilbron	M. L. Malan.
Bloemfontein (North)	A. G. Barlow.	Hoopstad	E. A. Conroy.
Bloemfontein (South)	Dr. C. F. Steyn, K.C.	Kroonstad	P. J. Terreblanche.
Boshof	J. J. van Rensburg.	Ladybrand	C. R. Swart.
Edenburg	Hon. F. W. Beyers, K.C.	Smithfield	Gen. the Hon. J.B.M. Hertzog.
Fauresmith	Hon. N. C. Havenga.	Vredefort	J. H. Munnik.
Ficksburg	J. G. Keyter.	Wepener	D. Hugo.
Frankfort	J. B. Wessels.	Winburg	Dr. N. J. van der Merwe.
Harrismith	A. A. Cilliers.		

6. **Union Government Commissions of Inquiry, etc.**—The following table gives particulars of the principal Commissions of Inquiry and kindred bodies, appointed by the Union Government in recent years, which submitted their reports during the financial year 1924–25 and thereafter, or which were still in session at the date of publication of this *Year Book*. References to Commissions which had completed their work before the year mentioned will be found in earlier issues of this *Year Book* (Nos. 2 to 7). Figures relating to expenditure are given to the 31st March, 1925, as shown in the last column of the table. A summary table giving the total cost of Commissions for a series of years will be found below.

(*a*) PARTICULARS OF RECENT UNION GOVERNMENT COMMISSIONS.

Description.	Date of Appointment.	Date of Report.	Expenditure to 31.3.25.
			£
A.—ADMINISTRATION.			
Unrest among Certain Patients in Pretoria Leper Asylum *Chairman :* J. Young.	February, 1926.	June, 1926.....	—
Combating of Malaria along Crocodile River *Chairman :* Harm Oost, M.L.A.	February, 1926.	February, 1926.	—
War Pensions Investigation..... *Chairman :* Dr. H. Reitz, M.L.A.	October, 1924..	January, 1925..	1,892
B.—SOCIAL MATTERS.			
Regard to Rents charged for Shops and Business Premises *Commissioner :* Rev. B. R. Hattingh, M.L.A.	September, 1924	April, 1925....	320
Economic and Wage Commission..... *Chairman :* S. Mills, C.M.G. (Melbourne, Australia)	August, 1925..	January, 1926.	—
Cost of Living Committee..... *Chairman :* J. Collie.	July, 1925....	November, 1925	—
Public Hospitals and Kindred Institutions *Chairman :* M. C. Vos, B.A.	October, 1924..	March, 1925...	—
Native Church Commission..... *Chairman :* Dr. A. W. Roberts.	August, 1921..	March, 1925...	—
Old Age Pensions..... *Chairman :* B. J. Pienaar, M.L.A.	February, 1926	—	—
C.—DEFENCE AND POLICE.			
Defence Commission of Inquiry..... *Chairman :* Major-General Sir H. T. Lukin, K.C.B., C.M.G., D.S.O.	October, 1924..	March, 1925...	956
Police Commission..... *Chairman :* Chas. te Water, M.L.A.	August, 1925..	April, 1926....	—
D.—RAILWAYS AND HARBOURS.			
Railway Workshops Departmental Commission *Chairman :* J. G. van der Horst.	September, 1924	May, 1925.....	—
Trade Prospects of Proposed Harbour Improvements at Port Elizabeth *Chairman :* J. G. van der Horst.	July, 1925.....	December, 1925	—
E.—MINING INDUSTRY.			
Mining Regulations Commission..... *Chairman :* W. Pittman, K.C.	October, 1924..	April, 1925....	1,835
Rockbursts Committee..... *Chairman :* Maj. U. P. Swinburne.	September, 1924	September, 1925	—
Cinderella East Rand Proprietary Mines *Chairman :* W. S. Webber, M.L.A.	September, 1923	December, 1925	85
F.—NATIVE AFFAIRS.			
Native Disturbances at Bloemfontein.. *Commissioners :* A. G. E. Pienaar. S. A. McCormick.	June, 1925....	September, 1925	—
G.—MISCELLANEOUS.			
Irrigation Finance Commission..... *Chairman :* A. P. J. Fourie, M.L.A.	October, 1924..	*First Report*, March, 1925 ; *Second Report*, October, 1925 ; *Final Report*, February, 1926.	1,878
Special Irrigation Commission.....	November, 1925	1st May, 1926..	—
Use of Mechanical Transport in the Union *Chairman :* Lt.-Col. J. G. Rose, D.S.O., V.D.	January, 1925..	November, 1925	—
Roads and Bridges..... *Chairman :* A. D. Holmwood.	January, 1925..	July, 1925.....	—
Gold Standard Commission..... *Members :* Dr. E. W. Kemmerer. Dr. G. Vissering.	October, 1924..	January, 1925..	7,892
Egg Export Commission..... *Chairman :* Col. J. I. Smith, C.B.E., M.R.C.V.S., F.R.S.I.	November, 1925	March, 1926...	—
Inquiry into Fruit Export Trade of South Africa *Chairman :* W. Lategan.	September, 1924	November, 1924	—

(*b*) **Expenses of Commissions.**—The following expenditure has been incurred in connexion with Commissions (not including Departmental Committees) during the years 1910–11 to 1924–25.

	£		£
1910–11	10,726	1918–19	11,548
1911–12	17,996	1919–20	22,882
1912–13	12,956	1920–21	29,374
1913–14	12,923	1921–22	16,015
1914–15	8,647	1922–23	6,165
1915–16	11,040	1923–24	5,444
1916–17	9,420	1924–25	14,905
1917–18	6,784		

7. **Officers of Parliamentary Establishment.**—The following list gives the principal Officers of the Parliamentary Establishment of the Union for the Senate, the House of Assembly, and the Joint Parliamentary Establishment :—

THE SENATE.

President	Senator the Hon. H. C. van Heerden.
Chairman of Committees	Senator the Hon. H. G. Stuart.
Clerk of the House and Taxing Officer	E. M. O. Clough, C.M.G.
Clerk-Assistant and Accountant	Maurice Green, V.D.
Gentleman Usher of the Black Rod and Committee Clerk	S. F. du Toit.

THE HOUSE OF ASSEMBLY.

Speaker	The Hon. E. G. Jansen.
Chairman of Committees and Deputy-Speaker	J. H. H. de Waal.
Deputy-Chairman	A. G. Barlow.
Clerk of the House and Taxing Officer	D. H. Visser.
Clerk-Assistant and Accountant	R. Kilpin.
Second Clerk-Assistant	C. Wyndham.
Sergeant-at-Arms	Col. T. L. de Haviland, C.M.G., D.S.O.

JOINT ESTABLISHMENT.

Librarian of Parliament	P. Ribbink.
Parliamentary Draftsman	Adv. A. v. d. S. Centlivres.

§ 2. King's Counsel.

King's Counsel.—Below are given the names of King's Counsel in the Union :—

KING'S COUNSEL IN THE UNION.

CAPE OF GOOD HOPE.

Alexander, Morris.
Beyers, the Hon. Fredrik William.
Bisset, Murray.
Buchanan, Douglas Mudie.
Buchanan, William Porter.
Burke, Henry Lardner.
Burton, the Right Hon. Henry.
Close, Ralph William.
Davis, Reginald Percy Basil.
Douglass, Edward Wingfield.
Gane, Percival Carleton.
Giddy, Richard William Shepstone.
Hodge, Donald Grant.
Howes, Robert Rhodes Reed Barritt.
Ingram, Charles James.
Jones, Howel.
Kitchin, Shepherd Braithwaite.
Lewis, Henry Godfrey.
Mars, Walter Herbert.
Molteno, the Hon. Sir James Tennant, Kt.
Sutton, George Gerhard.
Upington, Beauclerk.
Wille, George.

NATAL.

Burne, William.
Greene, Col. Edward Mackenzie, C.M.G.
Hathorn, Alexander Anthony Roy.
Laughton, Frederick Augustus.
Lloyd, John Barclay.
Mackeurtan, Harold Graham.
Turner, Edward.
Wylie, James Scott.

KING'S COUNSEL IN THE UNION—*continued.*

TRANSVAAL.

Barry, Charles Edward.
Davis, Adolph.
De Villiers, Charles William.
De Wet, the Hon. Nicolaas Jacobus.
Duxbury, William Samuel.
Duncan, the Hon. Patrick, C.M.G.
Ferris, Ivon Grindley-.
Jeppe, Carl.
Lansdown, Charles William Henry.
Lucas, Frank Archibald William.
Macwilliam, Russel Farquharson.
Maritz, Gerhardus Jacobus.
Morice, George Thomas.
Morris, Henry Harris.
Nathan, Manfred.
Nightingale, Lacy Gamaliel.
Papenfus, Herbert Boshof.
Pirow, Oswald.
Roos, the Hon. Tielman Johannes de Villiers.
Smuts, General the Right Hon. Jan Christiaan, C.H.
Solomon, Saul.
Stallard, Charles Frampton.
Taylor, Stanley Shelbourne, C.M.G., D.S.O

ORANGE FREE STATE.

Botha, Christiaan Lourens.
De Jager, Samuel Jacobus.
Fischer, Percy Ulrich.
Steyn, Colin Fraser.

§ 3. Central Administration.

Chief Officers of the Public Service.—The following is a list of the Chief Administrative and Professional Officers of the Public Service of the Union*:—

OFFICE OF H.E. THE GOVERNOR-GENERAL.

Secretary to the Governor-General.....	Major J. U. F. C. Alexander, M.V.O. O.B.E.

DEPARTMENT OF THE PRIME MINISTER.

Secretary to the Prime Minister and Clerk of Executive Council	H. Gordon Watson, I.S.O.
Assistant Secretary to the Prime Minister and Assistant Clerk of the Executive Council	W. J. H. Farrell.

DEPARTMENT OF NATIVE AFFAIRS.

Secretary for Native Affairs.....	Major J. F. Herbst, C.B.E.
Under-Secretary.....	E. R. Garthorne.
Director of Native Labour and Chief Native Commissioner, Witwatersrand	H. S. Cooke, O.B.E.
Chief Magistrate (Transkeian Territories)	W. T. Welsh.
Chief Native Commissioner (Cape).....	T. W. C. Norton.
Chief Native Commissioner (Natal).....	C. A. Wheelwright, C.M.G.

DEPARTMENT OF DEFENCE.

Chief of General Staff and Secretary for Defence	Brig.-General A. J. E. Brink, D.T.D., D.S.O.
Adjutant-General.....	Brig.-General W. E. C. Tanner, C.B., C.M.G., D.S.O.
Quartermaster-General.....	Colonel C. Brink, D.S.O.
Director of Air Services.....	Colonel Sir H. E. van Ryneveld, K.B.E., D.S.O., M.C.
Director of Medical Services.....	Lieut.-Colonel Sir E. N. Thornton, K.B.E.

* The names of the chief officers in the Provincial Administrations are given in § 5 of this chapter and of the principal officers in the Railways and Harbours Administration in Chapter XX.

DEPARTMENT OF MINES AND INDUSTRIES.

Secretary for Mines and Industries and Commissioner of Mines, Natal	H. Warington Smyth, C.M.G., M.A., LL.M., F.G.S., F.R.G.S., M.I.M.M.
Under-Secretary	F. A. Nixon.
Registrar of Mining Titles and Rand Townships Registrar	D. J. Stewart.
Government Mining Engineer	Dr. H. Pirow, D.Sc., M.Inst.M.M., D.I.C.
Chief Inspector of Mines	U. P. Swinburne, A.R.S.M., F.G.S., M.I.M.M., M.I.M.E.
Inspector of Explosives	W. B. Jackson.
Mine Surveyor	A. C. Sutherland, M.A., M.C.E., A.M.I.C.E.
Director of Geological Survey	A. W. Rogers, Sc.D., F.R.S.
Chairman, Board of Trade and Industries	A. J. Bruwer, M.A., Ph.D.
Chairman, Electricity Commission	H. J. van der Bijl, M.A., Ph.D., M.A.I.E.E., M.I.R.E.
Superintendent of Assize	J. C. Davidson.
Trade Commissioner, London	J. H. Dimond.
Trade Commissioner, Kenya	Col. R. Beresford Turner.
Trade Commissioner, America	E. Louw.
Commissioner of Commerce on Continent of Europe	C. I. Pienaar.

DEPARTMENT OF UNION EDUCATION.

Secretary for Education	G. M. Hofmeyr, B.A.
Under-Secretary	S. F. N. Gie, B.A., Ph.D.
Organizing Inspector	L. van Schalkwijk, Ph.D.
Inspector of Vocational Training	A. B. Linscott, A.M.I.C.E.

DEPARTMENT OF FINANCE.

Secretary for Finance	E. H. Farrer, C.A., C.M.G.
Under-Secretary	J. J. I. Middleton.
Commissioner for Inland Revenue and Taxes	A. P. McLoughlin.
Controller and Auditor General	J. de V. Roos, B.A., LL.B.
Assistant Controller and Auditor General	R. J. Hunter.
Secretary to High Commissioner (London)	J. P. J. Brunt.
Managing Director, Land and Agricultural Bank	Thos. B. Herold.
General Manager, Land and Agricultural Bank	A. C. Wilmot.
Commissioner of Customs and Excise	B. V. O'Riley.
Deputy-Commissioner	J. D. Heddon, B.A.
Union Government Agent at Lourenço Marques	A. T. Long, C.B.E.

DEPARTMENT OF JUSTICE.*

Secretary for Justice	W. E. Bok, Dr.Jur.
Under-Secretary	D. D. Keay.
Under-Secretary and Director of Prisons	W. S. Bateman, O.B.E.
Assistant Director of Prisons	C. P. A. Batho.
Law Adviser	Dr. A. A. Shoch.
Law Adviser	A. S. Welsh, B.A., LL.B.
Law Adviser	C. W. H. Lansdown, K.C., B.A., LL.B.
Law Adviser	F. P. van den Heever, B.A., LL.B.
Attorney-General (Cape)	E. W. Douglass, K.C.
Attorney-General (Natal)	L. Ward, B.A., LL.B.
Attorney-General (Transvaal)	L. G. Nightingale, K.C., B.A., LL.B.
Attorney-General (Orange Free State)	S. J. de Jager, K.C.
Crown Prosecutor (Johannesburg)	C. C. Jarvis, B.A., LL.B.
Solicitor-General (Grahamstown)	E. W. Baxter.
Commissioner of Police	Sir T. G. Truter, K.B.E., C.M.G.
Deputy-Commissioner and Secretary	H. C. Bredell.

* The names of the Judges and Registrars of the Supreme Court are given in Chapter IX.

DEPARTMENT OF THE INTERIOR.

Secretary for the Interior	G. F. Schmidt, B.A.
Under-Secretary	H. N. Venn.
Director of Census	J. E. Holloway, D.Sc.
Union Astronomer	R. T. A. Innes, D.Sc.
Commissioner for Mental Hygiene	J. T. Dunston, M.D., B.S., L.R.C.P., M.R.C.S.
Government Printer	Vacant.

PUBLIC SERVICE COMMISSION.

Chairman	A. G. E. Pienaar.
Commissioner	P. J. H. Hofmeyr.
Commissioner	R. C. Lloyd.
Acting Secretary	E. B. S. Reading.

DEPARTMENT OF PUBLIC HEALTH.

Chief Health Officer and Secretary for Public Health	J. Alexander Mitchell, M.B., Ch.B., D.P.H.
Assistant Health Officers for the Union.	Sir E. N. Thornton, K.B.E., M.R.C.S., L.R.C.P., D.P.H.; L. G. Haydon, M.B., C.M., D.P.H.; G. A. Park Ross, M.D., D.P.H.; F. C. Willmot, L.R.C.P., L.R.C.S., D.P.H.; E. H. Cluver, M.D., B.Ch., D.P.H.; W. A. Murray, M.B., Ch.B., D.P.H.
Pathologists	G. W. Robertson, M.R.C.S., L.R.C.P.; W. F. Rhodes, M.R.C.S., L.R.C.P., D.P.H.; J. D. Wicht, M.B., B.Ch.
Medical Superintendents	M. Mehliss, M.D. (Infectious and Venereal Diseases Hospital, Rietfontein, Johannesburg).
	P. Allan, M.D., D.P.H. (Tuberculosis Sanitorium, Nelspoort, Beaufort West District, Cape Province).
	J. W. de Vos, M.B., C.M. (Leper Institution), Pretoria.
Chief Clerk and Secretary to Council of Public Health	A. de V. Brunt.

PUBLIC WORKS DEPARTMENT.

Secretary for Public Works	O. W. Staten.
Under-Secretary	J. A. Macphail.
Chief Engineer	C. J. Gyde, M.I.C.E., M.I. (Struct.) E.
Architect	J. S. Cleland, M.B.E., F.R.I.B.A.

DEPARTMENT OF AGRICULTURE.

Secretary for Agriculture	Lieut.-Colonel G. N. Williams, D.S.O.
Under-Secretary	F. E. Geldenhuys, B.A., B.Sc., Ph.D.
Chief Conservator of Forests	C. E. Legat, B.Sc.
Principal Veterinary Officer	J. D. Borthwick, M.R.C.V.S.
Director, Veterinary, Education, and Research	Sir A. Theiler, K.C.M.G., D.Sc.
Director, Animal and Field Husbandry	R. W. Thornton.
Government Viticulturist	S. W. van Niekerk.
Chief of Botany and Plant Pathology	I. B. Pole Evans, C.M.G., D.Sc., F.L.S.
Chief of Entomology	C. P. Lounsbury, B.Sc.
Chief of Locust Administration	R. H. Williams.
Chief of Chemistry	St. C. O. Sinclair, D.Sc., F.C.S., F.I.C.
Chief of Education and Extension	H. S. du Toit, M.Sc., D.P.H.
Chief of Economics and Markets	W. J. Lamont.
Sheep and Wool Expert	A. J. Michaelian.

DEPARTMENT OF POSTS AND TELEGRAPHS.

Postmaster-General	H. J. Lenton.
Assistant Postmaster-General (Under-Secretary)	J. A. Davey.
Assistant Secretary	M. Buxton Forman.
Chief Engineer	R. F. McArthur.

DEPARTMENT OF LANDS.

Secretary for Lands	J. Sommerville, O.B.E.
Under-Secretary for Lands	G. Cross.
Registrar of Deeds (Cape Town)	G. Denoon, M.A., LL.B.
Registrar of Deeds (Pietermaritzburg)	A. N. M. Lloyd.
Registrar of Deeds (Pretoria)	A. N. Rowan.
Registrar of Deeds (Bloemfontein)	J. S. Louw.
Surveyor-General (Cape Town)	A. H. Cornish-Bowden.
Surveyor-General (Pietermaritzburg)	F. J. Lewis.
Surveyor-General (Pretoria)	W. P. Murray.
Surveyor-General (Bloemfontein)	W. M. Edwards.
Director of the Trigonometrical Survey (Cape Town)	W. C. van der Sterr.

DEPARTMENT OF IRRIGATION.

Director of Irrigation	A. D. Lewis, M.A., A.M.I.C.E., M.I.M.E.
Assistant Director of Irrigation	F. T. Patterson, A.M.I.C.E.
Superintending Engineer	C. H. Warren, A.M.I.C.E., M.I.M.E.
Boring Engineer	Major G. Ireland, D.S.O.
Chief Meteorologist	C. Stewart, B.Sc.
Hydrographic Surveyor	W. van Warmelo, Dipl.C.E.
Geologist	Dr. A. L. du Toit, B.A., D.Sc., Dipl. Mining Engineering, Assaying, and Geology.
Chairman of Irrigation Commission	R. J. van Reenen, B.A., C.E., A.M., Am.Soc.C.E., A.M.I.C.E.

DEPARTMENT OF LABOUR.

Secretary for Labour	C. W. Cousins, M.A.
Under-Secretary for Labour	E. H. W. Müller, B.A.
Chief Clerk	E. J. Scholtz.
Chief Inspector of Labour	I. L. Walker.
Chief Inspector of Factories	H. C. Fowler.
Principal Woman Inspector	Miss E. Winter.
Chairman of Wage Board	F. A. W. Lucas, K.C.

§ 4. Political Representatives.

1.—REPRESENTATION OF THE UNION GOVERNMENT ABROAD.

(i) *The High Commissioner in London and Principal Subsidiary Officers.*—The Office of "High Commissioner for the Union of South Africa" in the United Kingdom was created by Act No. 3 of 1911. The first occupant of the post was Sir Richard Solomon, K.C.B., K.C.M.G., K.C.V.O., who, on his decease in 1914, was succeeded by the Right Hon. W. P. Schreiner, P.C., C.M.G., K.C. On the death of the latter in June, 1919, Sir Reginald Blankenberg, the Secretary to the High Commissioner's Office, acted as High Commissioner until the appointment, in April, 1921, of Sir Edgar Harris Walton, K.C.M.G., who was succeeded, in March, 1925, by J. S. Smit, Esq.

The principal sub officers attached to the High Commissioner's office are: The Secretary; the Director of Stores and Shipping; the Advisory Engineer; the Trade Commissioner and the Commissioner of Commerce on the Continent of Europe (for particulars of whom see Chapter XVIII); the Publicity Agent; and the Accountant.

OFFICE OF HIGH COMMISSIONER IN LONDON—CHIEF OFFICERS.

Secretary	J. P. Joubert Brunt.
Trade Commissioner	J. H. Dimond.
Commissioner of Commerce on Continent of Europe	C. I. Pienaar.
Publicity Agent	G. E. Chittenden.

The offices of the High Commissioner are in Trafalgar Square, London, W.C. 2. The Commissioner of Commerce on the Continent of Europe has his headquarters in Milan.

(ii) *The Publicity Agent's Branch.*—A permanent official, styled "Publicity Agent," is attached to the office of the High Commissioner for the purpose of giving effect to the overseas publicity plans of the South African Railways and Harbours Administration which, through its Publicity Department in Johannesburg, prepares the data for making more widely known the agricultural and industrial potentialities and the natural travel attractions of South Africa. The necessary funds are provided by a vote annually included in the railway estimates, supplemented by subscriptions from municipalities, shipping companies, and other interested bodies.

(iii) *Agency of the Union Government at Lourenço Marques.**—The inevitably close connexion existing commercially and in numerous official ways between the Union and the neighbouring Portuguese colony of the Province of Moçambique renders it necessary to maintain at Lourenço Marques an Agency of the Union Government which directly represents all Union Government departments in their relations with the Portuguese authorities, and relieves the British Consulate of functions previously executed by the latter. In the absence of the British Consul-General, the Union Agent acts as Vice-Consul. The Agency is also available to the general public in the Union as a source of commercial and similar intelligence regarding the Province.

Destitute subjects of the Union are taken charge of by the Agency and either relieved or repatriated. The Union Agent is in liaison with the Union and Portuguese Criminal Investigation Departments. The Union Agency (subject to the Controller of Imports and Exports for the Union) deals entirely with the control of exports to Portuguese East Africa, and with the export through Delagoa Bay of Union coal—an important item, and one which is rigidly supervised. At the end of 1921 the system of permits for the export of goods from the Union to Moçambique was abolished.

An Immigration Office for the Union and a Union Customs establishment also exist at Lourenço Marques in order to eliminate delays which could not be avoided if all business had to be transacted at the Border station of Komatipoort. Weekly health statistics are furnished to the Union and Portuguese authorities.

2.—CONSULS OF FOREIGN COUNTRIES IN THE UNION.

The following list contains the names of Consuls and other representatives of foreign countries accredited to the Union :—

Country.	Rank.	Name.	Station.
Argentine Republic..	Consul-General.....	Dr. J. M. Linares.....	Cape Town.
	Vice-Consul.....	Alex. Dey.....	Durban.
	Vice-Consul.....	A. J. de Kock.....	Port Elizabeth.
Belgium.....	Consul-General.....	G. Stadler.....	Cape Town.
	Vice-Consul.....	J. Cleghorn.....	East London.
	Vice-Consul.....	W. Macfarlane.....	Port Elizabeth.
	Consul.....	H. Moumal.....	Durban.
	Hon. Consul.....	Dr. A. M. Heymans.....	Pretoria.
	Hon. Consul.....	I. H. Haarburger.....	Bloemfontein.
	Consul.....	P. Lamotte.....	Johannesburg.
Brazil.....	Consul (Acting).....	C. H. W. Flemming.....	Cape Town.
	Consul.....	J. Massey.....	Johannesburg.
	Consul.....	R. Cobhan.....	Durban.
Chile.....	Consul.....	A. D. Hinde.....	Johannesburg.
China.....	Consul-General.....	Liu Ngai.....	Johannesburg.
Czecho-Slovakia.....	Consul.....	T. Duffek.....	Cape Town.
Denmark.....	Senior Consul.....	Julius O. Jeppe.....	Cape Town.
	Vice-Consul.....	O. Kastrup.....	Port Elizabeth
	Vice-Consul.....	J. S. A. Pinderson.....	East London.
	Consul.....	Sir George Albu, Bart.....	Johannesburg.
	Consul.....	E. A. W. Anderson.....	Durban.
Finland.....	Hon. Consul.....	C. F. Spilhaus.....	Cape Town.
	Hon. Consul.....	J. W. C. Kittleson.....	Johannesburg.
	Hon. Consul.....	N. Meyer.....	Durban.
	Hon. Vice-Consul.....	W. H. Hardie.....	Port Elizabeth.
	Hon. Vice-Consul.....	W. T. Davidson.....	East London.

* The Union Agent is A. T. Long., C.B.E.

CONSULS OF FOREIGN COUNTRIES IN THE UNION—*continued.*

Country.	Rank.	Name.	Station.
France	Consul-General	J. J. A. H. Goiran	Johannesburg and Cape Town.
	Consul	P. M. Suzor	Cape Town.
	Consular Agent	J. Searle	Port Elizabeth.
	Consular Agent	J. Carrington	East London.
	Consular Agent	B. H. Hugo	Simonstown.
	Consul	J. G. H. M. Tremoulet	Durban.
Germany	Consul-General	A. Haug	Pretoria (with jurisdiction including mandated territory of South West Africa).
	Vice-Consul	R. Renner	Pretoria.
	Hon. Consul	Dr. J. H. Hammann	Cape Town.
	Vice-Consul	Dr. H. W. Rohde	Pretoria.
Greece	Consul-General	Julius O. Jeppe	Cape Town.
	Consul	Emile Nathan, M.L.A.	Johannesburg.
Italy	Consul-General	Commendatore Lamberto Tonecker	Cape Town.
	Hon. Vice-Consul	F. Laini	Cape Town.
	Vice-Consul	J. H. Astrop	Cape Town.
	Hon. Vice-Consul	W. E. Gill	Cape Town.
	Vice-Consul	J. Rennie	Durban.
	Consular Agent	V. L. L. de Waegenaere	Pretoria.
	Vice-Consul	Sir D. Harris, K.C.M.G., V.D., M.L.A.	Kimberley.
	Vice-Consul	T. F. Allen, O.B.E.	Johannesburg.
	Vice-Consul	C. W. Giovanetti, M.L.A.	Pretoria.
Japan	Consul	Tadanao Imai	Cape Town.
	Hon. Consul	W. R. Wright	Durban.
Latvia	Vice-Consul	S. W. Witaker	Cape Town.
Lichtensteiners are under the protection of the		Swiss Consulate.	
Luxemburg	Belgian Consular Officers	are in charge of Luxemburg interests.	
Netherlands	Consul-General	Dr. H. A. Lorentz	Pretoria.
	Vice-Consul	J. van Sighem	Pretoria.
	Vice-Consul	A. Goudsward, jun.	Port Elizabeth.
	Vice-Consul	J. Nicolay	East London.
	Hon. Consul	H. Altmann	Durban.
	Consul	J. C. G. Kampfraath	Bloemfontein.
	Vice-Consul	Dr. J. Jorissen	Luderitz.
	Consul	P. A. van Bultingha Wichers	Cape Town.
	Consul	C. L. C. van Kretschmar van Veen	Swakopmund.
Norway	Consul-General (with jurisdiction over the Union)	H. A. Falsen	Cape Town.
	Vice-Consul	T. M. Hansson	Cape Town.
	Hon. Consul	J. W. C. Kittleson	Johannesburg.
	Vice-Consul	H. J. Harraway	Port Elizabeth.
	Hon. Vice-Consul	J. W. Cowie	Port Nolloth.
	Hon. Consul	J. J. Egeland	Durban.
	Hon. Vice-Consul	J. C. J. Norman	Pretoria.
	Vice-Consul	S. Deary	East London.
Peru	Consul	J. C. Kemsley	Port Elizabeth.
Portugal	Consul-General	J. C. R. de Oliveira	Johannesburg.
	Consul-General for Transvaal and Orange Free State	—	—
	Hon. Vice-Consul	V. L. L. de Waegenaere	Pretoria.
	Consul-General at Cape Town	Jose da Rocha Prista	Cape Town.
	Hon. Vice-Consul	W. Macfarlane	Port Elizabeth.
	Vice-Consul	H. C. Peacock	East London.
	Hon. Vice-Consul	J. F. Ferreira	Johannesburg.
	Consul	J. L. Archer	Windhoek.
	Vice-Consul	L. Edward Serruys	Durban.
	Hon. Consular Agent	C. F. F. Quass	Middelburg (T.).
	Consul	C. P. da M. Ferreira	Durban.
Roumania	Consul-General	Julius O. Jeppe	Cape Town.
Siam	Consul-General	C. A. Lagesen	Cape Town.

CONSULS OF FOREIGN COUNTRIES IN THE UNION—*continued.*

Country.	Rank.	Name.	Station.
Spain	Consul	Senor don Manuel de la Ecosuray Fuertes	Cape Town.
	Vice-Consul	Dr. A. Heymans	Pretoria.
	Hon. Vice-Consul	Carlos Bothner	Cape Town.
	Vice-Consul	Alex. Dey	Durban.
Sweeden	Consul-General	C. G. H. Rosenlund	Cape Town.
	Vice-Consul	O. J. Oosthuizen	Port Elizabeth.
	Vice-Consul	J. J. G. Wiggens	East London.
	Vice-Consul	K. E. Wadner	Mossel Bay.
	Vice-Consul	A. J. Lindholm	Durban.
	Consul	G. Bergstrom	Johannesburg.
Switzerland	Consul-General	Dr. P. Pettavel	Johannesburg.
	Consul	C. Bothner	Cape Town.
United States of America	Consul-General	R. J. Totten	Cape Town.
	Consul	J. P. Moffitt	Cape Town.
	Consul	C. M. P. Cross	Cape Town.
	Vice-Consul	F. D. Hackett	Cape Town.
	Consul	G. K. Donald	Johannesburg.
	Consul	L. H. Gourley	Port Elizabeth.
	Vice-Consul	C. H. Hall	Johannesburg.
	Consul	F. H. Styles	Durban.
	Consular Agent	A. F. Fichardt	Bloemfontein.

§ 5. Provincial Administration.

1. **Administrators of the Provinces.**—The *South Africa Act* provides that in each of the four Provinces there shall be a chief executive officer appointed by the Governor-General-in-Council, and styled the Administrator of the Province. All executive acts relating to Provincial affairs are done in the name of this officer. In the appointment of an Administrator preference is, as far as possible, given to a person resident in the Province. Administrators are appointed for five years, and their salaries are provided by Parliament. The present Administrators of the several Provinces are :—

ADMINISTRATORS.

Cape of Good Hope	The Hon. A. P. J. FOURIE.
Natal	The Hon. Sir G. T. PLOWMAN, Kt., C.M.G.
Transvaal	The Hon. JAN H. HOFMEYR, M.A.
Orange Free State	The Hon. E. R. GROBLER.

2. **Executive Committees of the Provinces.**—Each Provincial Council elects at its first meeting, from among its members, or otherwise, four persons to form with the Administrator an Executive Committee for the Province, the Administrator acting as chairman. A member of a Provincial Executive Committee who is not also a member of the Provincial Council is entitled to take part in the proceedings of the Council but has not the right to vote. The function of Executive Committees is to carry on the administration of Provincial affairs on behalf of the Provincial Council. Executive Committees have the power, subject to certain considerations, to appoint officers to the Provincial Services. The present Provincial Executives are composed as under :—

EXECUTIVE COMMITTEES OF THE PROVINCES.

Cape of Good Hope.

A. J. CHIAPPINI. D. RETIEF.
G. H. GELDENHUYS. G. F. ZONDAGH.

Natal.

W. P. BAWDEN. C. F. CLARKSON.
J. DYSON. W. A. D. RUSSELL.

Transvaal.

J. F. BROWN. E. DE SOUSA.
B. D. G. PIENAAR. T. C. STOFFBERG.

Orange Free State.

Dr. D. G. CONRADIE. E. A. VAN DER WALT.
D. J. DE VILLIERS. H. J. J. VAN RENSBURG.

3. **Members of the Provincial Councils.**—The following list gives the name of the member representing each Provincial electoral division together with the name of such division :—

MEMBERS OF THE PROVINCIAL COUNCILS.

(i) *Cape of Good Hope.*

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Albany	W. H. Pigott.	Kimberley	W. Mills.
Albert	T. P. N. Coetzee.	King William's Town	F. Ginsberg.
Aliwal	J. H. Botha.	Ladismith	J. I. Mann.
Barkly West	J. Versluis.	Liesbeek	A. Palmer.
Beaconsfield	Dr. S. Zweibach.	Malmesbury	S. F. Malan.
Beaufort West	W. L. Luscombe.	Namaqualand	Rev. A. D. Luckhof.
Bechuanaland	P. J. du Plessis.	Newlands	W. H. D. Pearce.
Caledon	N. L. Z. le Roux.	Oudtshoorn	J. E. Potgieter.
Calvinia	C. A. van der Merwe.	Paarl	D. Retief.
Cape Town (Central)	C. J. Sibbett.	Piquetberg	A. de Waal.
Cape Town (Harbour)	C. M. Gibbs.	Port Elizabeth (Central)	Col. A. P. J. Wares.
Cape Town (Gardens)	R. W. Bowen.	Port Elizabeth (South)	E. R. McIlwraith.
Cape Town (Hanover Street)	Dr. A. Abdurahman.	Queenstown	W. F. de Wet.
		Riversdale	H. Muller.
Cradock	J. Bekker.	Rondebosch	J. D. Cartwright.
Ceres	B. Muller.	Salt River	J. Lomax.
Colesberg	F. J. du Toit.	Somerset East	L. J. Vosloo.
East London (City)	Rev. H. Thompson.	South Peninsula	A. J. Chiappini.
East London (North)	A. Wilson.	Stellenbosch	J. Rawbone.
Fort Beaufort	H. Sinclair.	Swellendam	M. van Breda.
George	H. D. van Huysteen.	Tembuland	W. Meaker.
Gordonia	S. S. Grove.	Three Rivers	D. M. Brown, jun.
Graaff-Reinet	G. P. Steyn	Uitenhage	A. B. Cunningham.
Griqualand	P. A. Myburgh.	Victoria West	C. E. Geldenhuis.
Hopetown	C. P. Mathewson.	Wodehouse	S. C. J. van Niekerk
Humansdorp	G. Zondagh.	Worcester	G. v. Z. Wolfaardt.

(ii) *Natal.*

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Dundee	J. Dyson.	Newcastle	G. Langley.
Durban (Berea Road)	J. P. Whyte.	North Coast	G. H. Hulett.
Durban (Central)	S. S. Brisker.	Pietermaritzburg (East)	W. Cox.
Durban (Congella)	W. Gilbert.	Pietermaritzburg (Umsinduzi)	J. McAuslin.
Durban (Essenwood Rd.)	W. A. D. Russell.	Pietermaritzburg (West)	A. J. McGibbon.
Durban (Greyville)	J. W. Coleman.	Umgeni	J. A. Lidgett.
Durban (Point)	A. H. Havcock.	Umvoti	Vacant.
Durban (Stamford Hill)	A. Eaton.	Umzimkulu	J. F. Rethman.
Durban (Toll Gate)	C. Henwood.	Utrecht	P. J. Wessels.
Durban (Umlazi)	H. A. Thorpe.	Victoria County	C. F. Clarkson.
Ixopo	F. W. Fell.	Vryheid	C. J. van der Merwe.
Ladysmith	D. Sparks.	Weenen	W. P. Bawden.
Melmoth	H. J. Potgieter.		

(iii) *Transvaal.*

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Barberton	J. P. Jooste.	Parktown	J. F. Brown.
Benoni	G. Hills.	Pietersburg	C. Hofmeyr.
Bethal	N. Smit.	Potchefstroom	B. D. G. Pienaar.
Bezuidenhout	W. A. Harper.	Pretoria Central	A. Davis.
Boksburg	E. Goodwin.	Pretoria District (North)	A. F. van Gass.
Brakpan	J. H. König.	Pretoria District (South)	J. M. F. Henn.
Christiana	F. Jooste.	Pretoria East	A. Andresen.
Delarey	J. P. Delarey.	Pretoria West	F. H. Blake.
Denver	G. Milligan.	Roodepoort	N. Toomey.
Ermelo	A. G. Kleynhans, sen.	Rustenburg	J. A. du Plessis.
Fordsburg	M. J. Green.	Springs	W. A. Jessop.
Germiston	S. A. van Lingen.	Standerton	P. B. du Plessis.
Heidelberg	F. W. R. Robertson.	Troyeville	F. H. Thompson.
Hospital	J. Weightman.	Turffontein	G. B. Steer.
Jeppes	J. A. Clark.	Ventersdorp	T. C. Stoffberg.
Johannesburg North	J. W. O'Hara.	Von Brandis	T. F. Allen.
Klerksdorp	H. L. M. Leibbrandt.	Vrededorp	S. A. Smit.
Krugersdorp	F. G. A. Wolmarans.	Wakkerstroom	K. H. H. Rabe.
Langlaagte	W. Bawden.	Waterberg	B. H. Schonken.
Lichtenburg	G. A. van der Walt.	Witbank	G. T. Robertson.
Losberg	C. H. Mostert.	Witwatersberg	A. J. de la Rey.
Lydenburg	E. de Sousa.	Wolmaransstad	L. M. Wentzel.
Marico	O. J. Oosthuizen.	Wonderboom	W. O. Solomon.
Middelburg	C. J. Coetsee.	Yeoville	H. J. Lamb.
North-East Rand	G. J. Stoop.	Zoutpansberg	W. H. Vorster.

(iv) *Orange Free State.*

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Bethlehem	H. D. Viljoen.	Jacobsdal	J. A. D. Serfontein.
Bloemfontein (District)	J. J. P. Vermaak.	Kroonstad (East)	C. P. J. Prinsloo.
Bloemfontein (East)	J. H. B. Reitz.	Kroonstad (West)	B. F. Rheeders.
Bloemfontein (West)	P. J. van B. Faure.	Ladybrand	J. D. T. Prinsloo.
Boshof	N. J. Minnaar.	Lindley	D. G. Conradie.
Edenburg	J. O. D. du Toit.	Parys	G. F. de Villiers.
Fauresmith	E. A. van der Walt.	Rouxville	H. J. Odendaal.
Ficksburg	D. J. de Villiers.	Senekal	A. H. M. Lamprecht.
Frankfort	J. C. Kriek.	Thaba 'Nchu	C. A. Ebersohn.
Harrismith	C. H. Ochse.	Vrede	C. F. H. Meintjes.
Heilbron	M. J. Vermeulen.	Vredefort	B. Cilliers.
Hoopstad	H. J. J. van Rensburg.	Wepener	J. C. de Wet.
		Winburg	C. T. van Schalkwyk, jun.

4. **Provincial Ordinances.**—Particulars of ordinances passed by the several Provincial Councils in 1925 and 1926 are given below (Appropriation Ordinances are excluded). For the years preceding reference should be made to previous issues of this *Year Book.*

PROVINCIAL ORDINANCES.

(i) *Cape of Good Hope.*

No. of Ordinance.	*Title.*	*No. of Ordinance.*	*Title.*
	1925.		
2.	Payment of Subsidies.	15.	Licences (Amendment).
4.	Teachers' Salaries.	16.	School Board (Amalgamation).
5.	Officials (Pensions).	17.	Taxation Exemption.
6.	Fisheries (Amendment).	18.	Electric Power (Amendment).
7.	Bedford and Kuruman (Loans Subsidy).	19.	Local Authorities (Drainage).
8.	Municipal (Provision of Homes) Amendment.	20.	Valuation.
9.	Provincial Immovable Property Tax.	21.	Pounds and Trespasses (Amendment).
13.	Hospital Fees.	22.	Cape Municipal Franchise.
14.	Wild Flowers' Protection.	23.	Education (Amendment).
	1926.		
3.	Payment of Subsidies.	11.	Provincial Immovable Property Tax.
8.	Entertainments Duty (Amendment).	20.	Appropriation (1926–27).
9.	Public Entertainments (Censorship).	22.	Shop Hours (Amendment).

(ii) *Natal.*

No. of Ordinance.	*Title.*	*No. of Ordinance.*	*Title.*
	1925.		
3.	Local Township Law, No. 11, 1881 (Amendment).	14.	Primary Education, No. 10 of 1918 (Amendment).
6.	By-Roads.	15.	Estcourt Loan and Extension.
7.	Durban Corporation Burial Grounds.	16.	Noxious Weeds Law (Amendment).
8.	The Durban Transportation Consolidated Laws, 1905 to 1925.	17.	Pietermaritzburg Hospitals and Places of Isolation (Infectious Diseases).
9.	The Harding Wattle and Gum Culture.	18.	Pietermaritzburg Swimming Baths.
11.	Birds' Protection Act, No. 33, 1896 (Amendment).	19.	Vryheid Corporation Additional Loans and Powers.
12.	Howick Township.	20.	Durban Botanic Gardens (Amendment).
13.	Teachers' Pensions (Technical High School).	22.	Rural Dealers' Licensing Law (Amendment).
	1926.		
4.	Local Urban Areas' Administration.	16.	Ladysmith Consolidated Loans and Public Improvements.
5.	Indigenous Plants and Flowers Ordinance, 1916 (Amendment).	17.	Estcourt Sewerage Loan.
6.	Vryheid School Ground.	18.	To Consolidate and Amend the Laws relating to Motor-Cars and Traffic on Public Roads.
7.	South Shepstone Dominican School Lands.	19.	To enable Boroughs and Townships to Borrow Money under the Local Loans Act, 1926, for the purposes of any Authorized Loan.
8.	Pietermaritzburg Park.	20.	To Amend Section 197 of Boroughs Ordinance.
9.	Dundee Loan.	21.	Geluksburg Township Dissolution.
10.	Durban Corporation Financial and Additional Powers.	22.	To increase Dog Tax
11.	Townships.		
12.	Restriction of Right to run Motor-Omnibuses within the City and Borough of Pietermaritzburg.		
13.	Teachers' Pensions (Amendment).		
14.	Newcastle Corporation.		

(iii) *Transvaal.*

No. of Ordinance.	*Title.*	*No. of Ordinance.*	*Title.*
	1925.		
4.	School Board Election.	16.	Local Government (Further Amendment).
5.	Local Government (Amendment).	19.	Vermin Destruction.
7.	Removal of Dead Bodies.	20.	Registration and Control of Dogs (Amendment).
8.	Pedlars and Hawkers.	21.	Betting Taxation (Amendment).
9.	Local Authorities' Rating (Amendment).	22.	Townships Act (Amendment).
10.	Shop Hours (Amendment).	23.	Companies' Tax (Amendment).
11.	General Dealers (Control).	24.	Importers' Licensing.
12.	Transvaal Teachers' Pensions (Amendment).	25.	Licensing of Bookmakers and Taxation (Amendment).
13.	Municipal Elections (Amendment).		
15.	Poll Tax (Amendment).	26.	Licensing of Bookmakers and Taxation.
	1926.		
3.	Whippet Racing (Control).	10.	Pounds (Amendment).
4.	Poll Tax (Amendment).	11.	To Consolidate and Amend the Law relating to Municipal Government.
5.	Charitable Institutions (Amendment).	12.	General Dealers (Control).
6.	Vermin Destruction (Amendment).	13.	Municipal Main Roads.
7.	Private Hospitals (Amendment).		

(iv) *Orange Free State.*

No. of Ordinance.	*Title.*	*No. of Ordinance.*	*Title.*
	1925.		
5.	Tax on Greyhounds.	10.	Liquor Licences (Further Amendment).
6.	Shop Hours and Half-Holiday.	11.	Local Government Consolidation.
8.	Somerville Game Reserve.	12.	Tax on Persons.
9.	Entertainment Tax and Licensing (Further Amendment).		
	1926.		
4.	Auction Duty Variation.	8.	Vermin Destruction.
5.	Special Road Boards.	10.	Teachers' Pensions (Further Amendment).
6.	Entertainment Tax and Licensing (Further Amendment).	11.	Motor-Car and Wheel Tax.
7.	Compounded Wheel Tax.	13.	Appropriation (1926–27).

5. **Chief Officers of the Provincial Administrations.**—The following is a list of the Chief Administrative Officers of the several Provinces :—

CAPE OF GOOD HOPE.

Provincial Secretary, with additional title of Chief Local Government Inspector	A. S. WEISBECKER.
Superintendent-General of Education	W. J. VILJOEN, M.A., Ph.D.
Director of Valuations	H. P. SOLOMON.

NATAL.

Provincial Secretary	JOHN M. HERSHENSOHNN.
Superintendent of Education	H. BRYAN, M.A.
Secretary, Education Department	E. D. DAVIES.
Engineer-Superintendent of Roads	H. B. JAMESON.

TRANSVAAL.

Provincial Secretary	D. E. VAN VELDEN.
Director of Education	H. S. SCOTT, B.A.
Secretary, Education Department	F. S. MALAN, B.A.
Superintendent of Roads and Local Works	A. D. HOLMWOOD.

ORANGE FREE STATE.

Provincial Secretary	R. A. GREGOROWSKI.
Director of Education	S. H. PELLISSIER, B.A.
Secretary, Education Department	J. GRAY.
Superintendent of Roads and Local Works	W. F. MURRAY.
Chief Clerk (Assistant Provincial Secretary and Clerk to the Provincial Council)	J. H. B. DE VILLIERS.

§ 6. Military Decorations.

Military Decorations.—The following list of military decorations and honours awarded in the Union is additional to lists published in previous issues of the *Year Book*. Owing to exigencies of space, these earlier lists have not been repeated :—

THE GRAND PRIORY OF THE ORDER OF THE HOSPITAL OF ST. JOHN OF JERUSALEM IN ENGLAND.

Knight of Grace.

Name.	Unit.
Col. Sir E. N. Thornton, K.B.E., M.R.C.S.....	S.A.M.C.

DEKORATIE VOOR TROUWE DIENST, ANGLO-BOER OORLOG, 1899–1902. (D.T.D.).

The undermentioned officers of the late South African Republican Forces :—

Veg-generaal Celliers, J. G.
Kommandant Wolmarans, M. J.
" Jonker, D. J.
" Bezuidenhout, J. A. J.
" van Dam, G. M. J.
" Buys, S. B.
Kaptein en Adjudant Theron, W. J.
Kaptein Wessels, J. J. P.
" Meintjes, S. W.
Veldkornet Volschenk, J. E.
" v. d. Heyde, H. A. P. D.
" Keeve, M. F.
" Wessels, G. D. J.
" Volschenk, C. G.
" van Zyl, M. S.
Luitenant Jonker, D. J.
" Gildenhuys, B. P. A.
" Boshoff, N. J.
" Pienaar, F. F.
" van der Merwe, J. P.
Assistent Veldkornet Wathall, R. McD.
" " Weiss, K. E.
" " Badenhorst, F. J.
Ass. Hoofkommandant Hatting, J. J. G.
Kaptein en Adjudant Brink, M. C. P.
Kaptein van Wyk, J. G. S.
" Lemmer, H. R.
" Rademeyer, T. C.
Veldkornet Bezuidenhout, A. J.
" Scheepers, D. du P.
" Preller, M. H. O.
" Wolmarans, G. J. M.
" van der Merwe, J. C.
" Swanepoel, J. S.
" Opperman, T. P.
Ass. Veldkornet en Adjudant Oelrich, H. H. B.
Luitenant Myburgh, W.
Kommandant Flemming, D. F. H.
" Pienaar, J. J.
" v. d. Berg, B.
Kaptein en Adjudant van Niekerk, W. A.
Veldkornet en Adjudant Jordaan, L. R.
Veldkornet Stols, G. J.
" Theunissen, M. J. V.
" Marais, D. P.
" Botha, W. J.
Luitenant en Adjudant Heiberg, A. C.
" " Rossouw, P. A.
" " Botha, J. P.
Luitenant Boshoff, W. H.
" Rocher, C. G. C.
Asst. Veldkornet de Jager, L. W.
Asst. Hoofkommissariaat Poultney, W. H.
Krygskommissaris Malherbe, D. G.
Kommandant du Plooy, P. W.
" Wolmarans, F. G. A.
Majoor Ferreira, I. S.
Kaptein en Adjudant Strauss, W. P.
Kaptein Pasch, H. P. J.
" Kelly, T. A.
Veldkornet en Adjudant Grobbelaar, N. C.
" le Roux, P. C.
Veldkornet Lubbe, H. J.
" Steyn, W.
" Carr, W. G.
" Leliveld, A. J.
" de Villiers, P. H.
" Froneman, P. A.
" Jansen, C. A. J.
Luitenant Brink, G. H.
" Coetzee, W. A. D.
" de Wet, G. C.
" Gehle, J. W.
" Leibbrandt, M. J.
Asst. Veldkornet Botha, D. H.

§ 7. Table of Notable Events.

The following table gives in chronological order the chief events in South Africa from the date of discovery :—

1487 Discovery of the Cape of Good Hope by Bartholomew Diaz.
1497 Landing of Vasco da Gama at St. Helena Bay and at Mossel Bay. Discovery of Natal.
1503 Discovery of Table Bay by Saldanha.
1510 D'Almeida, Viceroy of Portuguese East Indies, killed in skirmish with Hottentots near Table Bay.
1580 Sir Francis Drake's voyage round the Cape.
1591 English ships in Table Bay.
1595 Dutch ships at Mossel Bay.
1601 First British East India Fleet at Table Bay.
1602 Netherlands East India Company formed.
1652 Landing of Van Riebeek. First settlement.

1654 Introduction of Asiatic convicts.
1657 First free Burghers at Rondebosch.
1658 First importation of about 400 West African slaves.
1666 Building of the Castle at Cape Town commenced.
1678 Settlement of Hottentots Holland.
1679 Stellenbosch founded under Simon v. d. Stel. Completion of the Castle at Cape Town.
1685 Visit of H. A. van Rheede to the Drakenstein. Beginnings of local government. Discovery of copper in Namaqualand.
1687 Settlements along Berg River (Drakenstein, Paarl).
1688 Arrival of Huguenot settlers. Settlement of French Hoek.
1698 Settlement of Wagenmaker's Vallei (Wellington).
1699 Retirement of Simon v. d. Stel. Willem Adriaan v. d. Stel made Governor.
1700 Occupation of land in 't Land van Waveren (Tulbagh).
1706 Popular movement against the Governor.
1707 Recall of Governor W. A. v. d. Stel.
1713 Devastation by smallpox outbreak introduced from India, resulting in annihilation of Hottentot tribal system.
1717 Reports by Members of the Council of Policy on the introduction of white labourers.
1737 First Moravian Mission (abandoned 1744).
1746 Swellendam founded.
1751 Ryk Tulbagh, Governor.
1755 Foundation Stone of Old Town House, Cape Town, laid.
1760 Orange River crossed by Coetzee.
1778 Fish River made the eastern boundary by Governor van Plettenberg.
1779 First Kaffir War.
1780 Birth of Piet Retief.
1781 An English fleet sent to seize the Cape; disabled at Porto Praya by French, who, as allies of Dutch, sent a garrison to the Cape.
1782 First issue of Paper Rixdollars.
1786 Foundation of Graaff-Reinet.
1789 Second Kaffir War.
1792 Foundation of Moravian Mission at Genadendal. Arrival of Commissioners-General Nederburg and Frijkenius; new taxation. Birth of A. H. Potgieter.
1793 Establishment of the "Bank van Leening" (Lombard Bank).
1794 Sluysken appointed Commissioner-General.
1795 Revolt at Swellendam and Graaff-Reinet. British occupation. General Craig, Governor.
1796 Surrender of Admiral Lucas's fleet to Admiral Elphinstone in Saldanha Bay. Constitution of Burgher Senate in Cape Town.
1797 Earl Macartney, Governor.
1798 First Post Office. Liquidation of Dutch East India Company.
1799 Rebellion on eastern frontier. Third Kaffir War. Beginnings of London Missionary Society in South Africa. Sir George Yonge, Governor. Birth of A. W. J. Pretorius.
1800 First printing press at Cape Town. *Government Gazette* started.
1803 Cape handed over to the Batavian Republic. J. A. de Mist, Commissioner. General Janssens, Governor.
1804 Uitenhage founded.
1806 First regular inland postal service. Battle of Blaauwberg and surrender of Cape to Sir David Baird. British Parliament passes Act prohibiting slave importation in conquered colonies.
1807 Lord Caledon, Governor.
1808 Clanwilliam founded.
1811–15 Large increase in paper money issues. Depreciation of the rixdollar.
1811 Caledon and George founded. First circuit court. Sir John Cradock, Governor.
1812 Fourth Kaffir War. Campaign to drive Kaffirs across Fish River. Grahamstown and Cradock founded. The Black Circuit.
1814 The Cape ceded in perpetuity to England. Lord Charles Somerset, Governor. Mail packet service started between Britain and the Cape.
1815 Slachter's Nek incident.
1816 Wesleyan Missionary Society's first work in South Africa.
1818 Fifth Kaffir War. Occupation by settlers of land beyond the Orange River. Foundation of Beaufort West. Foundation of South African Public Library. Formation of Vicariate of the Cape of Good Hope by Pope Pius VII.
1819 Cape boundary extended to Keiskama River.
1820 Arrival of 5,000 British immigrants at Port Elizabeth, the "1820 Settlers," who settled chiefly in Albany and Bathurst. Foundation of Worcester.

1822 South African Public Library opened. Government teachers appointed to Stellenbosch, Caledon, Graaff-Reinet, Tulbagh, Uitenhage, George, etc.

1824 Publication of *Commercial Advertiser*, the first newspaper. Construction of road through French Hoek Pass. First Synod of Dutch Reformed Church. Mission Station at Lovedale. British traders at Port Natal. First lighthouse opened.

1825 Birth of S. J. P. Kruger. First steamship in Table Bay. Depreciated rixdollar converted into British sterling at 1s. 6d.

1826 Retirement of Lord Charles Somerset.

1828 Death of Tshaka, who had been responsible for internecine wars amongst the Bantu tribes. Accession of Dingaan as Chief of the Zulus. Sir Lowry Cole, Governor. Administrative changes. Old High Court superseded by Supreme Court, independent of Governor. Landdrosts and Heemraden replaced by Civil Commissioners and Resident Magistrates. English becomes official language. Ordinance No. 50: All free coloured people in the Cape Colony placed on a political level with Europeans, and laws against Hottentot vagrancy abrogated. Ordinance issued securing freedom of the Press.

1829 Foundation of South African College, Cape Town.

1830 Colesberg founded. Road over Sir Lowry's Pass opened. Kaffraria opened to traders. Treaty recognizing Andries Waterboer as Chief of Griquas.

1831 First publication of *De Zuid Afrikaan* (*Ons Land*). First issue of *Grahamstown Journal*.

1834 King William's Town founded. Sir Benjamin D'Urban, Governor. Creation of Executive and Legislative Councils, latter including nominated colonists. Second Charter of Justice. Liberation of the slaves. Kaffir unrest culminates in serious invasion of Eastern Province (December). Sixth Kaffir War.

1835 Province of Queen Adelaide formed, but later abandoned by order of British Government. Durban founded. Beginning of Trichardt's Trek.

1836 Great Boer Trek from Cape under Potgieter, Maritz, Uys, and Pieter Retief. First Volksraad at Vet River. Ordinance permitting formation of municipalities (Cape).

1837 First "Grondwet" adopted. Piet Retief elected as leader. Winburg founded. Matabele under Moselekatze driven north of Limpopo. Retief treks to Natal. Separate administrative districts for Port Elizabeth, Cradock, and Colesberg. Sir B. D'Urban dismissed. Accession of Queen Victoria.

1838 Sir George Napier, Governor. Retief's Treaty with Dingaan. Massacres of Boers under Retief by Dingaan (February). Massacres round "Weenen." Overthrow of Dingaan by Andries Pretorius at Blood River (16th December—Voortrekkers' Day). Boers founded the Republic of Natal. Pietermaritzburg founded.

1839 Potchefstroom founded and Council, subject to Natal Volksraad, established. Temporary British occupation of Durban. Constitution of Cape Town Municipality by special ordinance. Reorganization of education system in Cape Colony. J. Rose-Innes, Superintendent-General. Local school boards established.

1840 Dingaan driven out of Natal. Panda becomes chief as vassal of Republic of Natal.

1840–5 Establishment of churches and villages at Piquetberg, Riversdale, Bredasdorp, Wellington, Prince Albert, Riebeek East.

1842 British forces besieged in Durban. Dick King's ride from Port Natal to Grahamstown to seek assistance for the British. Extension of British sovereignty over Natal.

1843 Recognition by treaties of Moshesh as head of Basutos and of Adam Kok of Griquas. Ordinance for "spiritual" self-government of Dutch Reformed Church. Ordinance establishing Board of Commissioners of public roads and divisional road boards (elective) with rating powers.

1844 Sir Peregrine Maitland, Governor. Incorporation of Natal in Cape Colony decided upon. Majority of emigrant Boers retire across the Drakensberg. Pondoland a treaty state. Potchefstroom Volksraad adopts the Thirty-three Articles.

1845 Natal separated from Cape Colony. Trek to and formation of Volksraad at Ohrigstad.

1846 Bloemfontein founded. Postal improvements. Institution of bi-weekly postal service between principal seats of magistracy. Seventh Kaffir War.

1847 Sir H. Pottinger, Governor and High Commissioner, followed by Sir Harry Smith. Opening of Montagu Pass. Creation of Province of British Kaffraria as result of "War of the Axe." Commencement of sugar plantations in Natal. East London founded.

1848 British sovereignty proclaimed between Orange and Vaal Rivers. Battle of Boomplaats. Mitchell's Pass opened. First Anglican Bishop (of Cape, Natal, and St. Helena). Introduction of a nominated Legislative Council in Natal.

1849 Arrival of ship "Neptune" at Simon's Bay with convicts. Successful agitation against plans of Earl Grey for making Cape a penal settlement. Livingstone discovered Lake Ngami. Establishment of Diocesan College at Rondebosch. Lydenburg founded. Agreement at Derdepoort (Verenigde Bond) between the trans-Vaal emigrants, except those of Zoutpansberg.

1850 Outbreak of Great Kaffir Rebellion. Eighth Kaffir War. Rustenburg founded. *The Friend*, Bloemfontein, first issue published.

1851 Trouble with Basuto. Fight at Viervoet and defeat of Major Donovan.

1852 Sir George Cathcart, Governor, in succession to Sir Harry Smith. Copper mining begun at Springbokfontein. First export of copper. Sand River Convention, recognizing independence of Transvaal Boers. Further fighting with the Basutos. Defeat of Sir George Cathcart by Moshesh at the Battle of Berea. Wreck of the "Birkenhead." Zoutpansberg burghers join the Verenigde Bond. Trekkers settle in Utrecht. Death of A. H. Potgieter.

1853 End of Eighth Kaffir War. Order established in Amatolas (made a "Crown Reserve"). Europeans settled at Queenstown and Seymour. Death of Andries Pretorius. "Verenigde Bond" becomes "South African Republic." Union Steamship Line founded.

1854 Sir George Grey, Governor. Convention of Bloemfontein. Orange Free State becomes independent, with Josias P. Hoffman as President. Representative government at the Cape with elected Legislative Council and House of Assembly. First Cape Parliament. Appointment of British magistrates for Kaffraria. States subsidies to native industrial schools.

1855 Act establishing elective Divisional Councils in Cape Colony (replacing older road and school boards). Pretoria founded. M. W. Pretorius, provisional President of South African Republic. J. N. Boshoff, President of Orange Free State. South African Museum founded. Grey College founded.

1856 Natal made a separate colony. Self-destruction of Xosa tribes by slaughter of all cattle. Secession of Lydenburg from South African Republic.

1857 First publication of *Cape Argus*. First Legislative Council in Natal. First mail contract with Union Steamship Company for regular mail service between England and South Africa. First *Government Gazette* of South African Republic.

1858 Settlement of "German Legion" round King William's Town. Grey Hospital opened at King William's Town. Ama-Xosa slaughter their cattle. Orange Free State war with the Basuto under Moshesh. Creation of Board of Public Examiners (precursor of University). Constitution, Flag, and Coat of Arms of South African Republic finally adopted. Union of Lydenburg and Utrecht Republics.

1859 Pretorius elected President both of South African Republic and Orange Free State. First railway in South Africa commenced. Sir George Grey's abortive scheme of South African federation. First Transvaal newspaper, *De Oude Emigrant* (Potchefstroom).

1860 First telegraph (Cape Town to Simonstown). Initiation of a penny post in Cape Town. Work begun on Table Bay Docks. Union of the Republic of Lydenburg with the South African Republic. Pretoria established as the seat of government in Transvaal. First importation of labourers from India into Natal.

1861 Sir Philip Wodehouse, Governor, Cape. Purchase of Griqua territory by Orange Free State and removal of Adam Kok and his people.

1863 Railway opened to Wellington. Pretorius retires from Presidency of the Orange Free State.

1864 J. H. Brand, President of Orange Free State. M. W. Pretorius, President, and Paul Kruger, Commandant-General, of the South African Republic. Establishment of Eastern Districts Court (Cape). Completion of telegraph line between Cape Town and East London.

1865 Kaffraria annexed to Cape. Census of population in Cape Colony.

1865–6 War between Orange Free State and Basutos.

1867 New Orange Free State war with Basuto. First diamond discovered near Hope Town.

1868 Basutoland adopted as British territory. Report of gold near Oliphants River. President Pretorius defines boundaries of South African Republic, including Delagoa Bay. England and Portugal protest.

1869 British intervention in Basutoland. Under Convention of Aliwal conquered territory ceded to Orange Free State. Opening of Suez Canal. Treaty between South African Republic and Portugal in regard to Delagoa Bay.

1870 Sir Henry Barkly, Governor, Cape. Opening of Cape Town Docks. Gold discovered in Murchison Range. Death of Moshesh. First consideration of railway construction in the Transvaal. Diamond discoveries.

1871 Diamond fields annexed to Cape. First mail from Cape Town to the diamond fields. Constitution of High Court of Griqualand. The Keate Award in favour of Waterboer and Griquas as to boundary with Transvaal; Republic protests. Annexation of Basutoland. T. F. Burgers elected President of the South African Republic.

1872 Responsible government introduced in the Cape. Sir J. Molteno, first Prime Minister. Death of Panda. Treaty and rectification of boundaries between the two Republics. Castle Steamship Line founded.

1873 Act incorporating University of Cape of Good Hope. Rising of Langalibaleli, resulting in mission of Sir Garnet Wolseley (1875). Establishment of Griqualand West as a Crown Colony. Acquisition by Cape Government of existing railways and telegraphs (1873–74). Gold discovered in Lydenburg District of Transvaal.

1874 Victoria College founded at Stellenbosch. Railway opened from Port Elizabeth to Uitenhage. Convention between Great Britain and Orange Free State.

1875 Act abolishing grants in aid of salary of clergy of any denomination. Mission of Sir Garnet Wolseley. Lord Carnarvon's scheme of South African federation put forward. Reorganization of Natal administration. Census of population in Cape Colony. Delagoa Bay awarded to Portugal by MacMahon's award. Treaty between South African Republic and Swazis.

1876 Failure of J. A. Froude's mission in support of scheme of South African federation. First railway commenced in Natal. Outbreak of war between Boers and Sekukuni. Disaster to Boer levies.

1877 Sir Bartle Frere, Governor, Cape. Permissive South Africa Act in British Parliament. Peace with Sekukuni. Transvaal proclaimed British territory by Sir Theophilus Shepstone; protest of President Burgers. Visit of Paul Kruger with Jorissen to England. Rising of Kaffirs under Kreli. Ninth Kaffir War. First Sprigg Ministry.

1878 Walvis Bay proclaimed British territory. Telegraph between Natal and Transvaal. First Sprigg Ministry (Cape). Visit of second deputation (Paul Kruger and P. Joubert) to England. First tea plantation laid out in Natal. Second war with Sekukuni.

1879 Zulu Rebellion under Cetewayo. Isandhlwana and Rorke's Drift battles. Defeat of Zulus at battle of Ulundi. Capture of Cetewayo. General Sir Garnet Wolseley, Governor of Natal. Transvaal deputation to High Commissioner.

1880 Legislative Council in Transvaal. Sir George Colley, Governor of Natal. War with Basuto. Griqualand West annexed to the Cape Colony. Formation of De Beers Company. Opening of submarine cable to Cape Town. Final rejection by Cape Parliament of Lord Carnarvon's scheme of South African federation. Formation of the Afrikander Bond. Meeting of Burghers at Paardekraal. Outbreak of first Anglo-Boer War. Bronkhorstspruit. Triumvirate (Kruger, Joubert, Pretorius) in command.

1881 Laing's Nek (28th January). Majuba (27th February). Death of Sir George Colley. Convention of Pretoria. Recognition of Transvaal independence. Sir Hercules Robinson, Governor of the Cape. Scanlen Ministry (Cape).

1882 Republics Stellaland and Goshen founded. Small Kaffir wars in Transvaal. Use of Dutch language recognized in Cape Parliament. Sir Henry Bulwer, Governor of Natal.

1883 Postal Conventions between South African States. German trader, Luderitz, at Angra Pequena. Kruger, President of South African Republic. MacMurdo concession. Machado surveys railway line Delagoa Bay–Pretoria.

1884 Consolidation of the Afrikander Bond. Barberton goldfields opened. Basutoland a Crown Protectorate. Convention of London with South African Republic. Upington Ministry. Warren's expedition to Bechuanaland. Concession to Netherlands South African Railway Company. German Protectorate of South West Africa. New Republic at Vryheid. British at St. Lucia Bay.

1885 Cape Railway opened to Kimberley. Sir C. Warren's expedition. Abolition of Republics of Stellaland and Goshen and creation of Province of British Bechuanaland.

1886 Second Sprigg Ministry (Cape). Opening of goldfields on Witwatersrand. Johannesburg founded. Telegraph convention, Cape, Natal, and Orange Free State.

1887 Zululand finally proclaimed British territory. Sir T. Upington, Mr. J. H. Hofmeyr, and Sir J. Robinson (Natal) at first Imperial Conference. Coal first opened up in Transvaal (near Boksburg). Establishment of State Library at Pretoria. Grobler's Treaty between South African Republic and Lobengula.

1888 Death of President Brand. F. W. Reitz elected President, Orange Free State. First mining concession granted by Lobengula. British South Africa Company founded. Murder of Grobler by Khama's subjects.

1889 Customs Union between Cape and Orange Free State Governments. Eighth Parliament (Cape). Sir Henry Loch, Governor of the Cape. Sir Charles Mitchell, Governor of Natal. Formation of Chamber of Mines.

1890 Railway from Cape Town reaches Bloemfontein. First Swaziland Convention. Failure of Cape of Good Hope Bank. First Rhodes Ministry (Cape). Census of white population in Transvaal and census of population in Orange Free State. First railway in Transvaal (Johannesburg to Boksburg) opened (17th March). Second Volksraad (Transvaal) established. Occupation of Mashonaland by British troops. Customs union between Cape, Orange Free State, and British Bechuanaland. Anglo-German Convention defining boundaries of Cape Colony with those of German South West Africa.

1891 Census of population in Cape Colony and Natal. Selati railway concession.

1892 Railway to Johannesburg completed with connexions from Cape Town, Port Elizabeth, and East London.

1893 Responsible government granted to Natal. Robinson Ministry (Natal). Sir Walter Hely-Hutchinson, Governor of Natal. Sir Hercules Robinson (Lord Rosmead), Governor of Cape. Second Rhodes Ministry (Cape). Matabele War. Death of Major Allan Wilson. Record voyage from England to Cape Town (R.M.S. "Scot," 14 days 11 hours). Bechuanaland postal services placed under administration of the Cape Colony. Second Swaziland Convention.

1894 Railway opened between Lourenço Marques and Johannesburg (2nd November). Railway Conventions between South African Republic and Cape and Natal. Pondoland annexed to Cape Colony. Glen Grey Act for separate administration of Transkei. Third Swaziland Convention.

1895 Railway opened between Durban and Johannesburg (16th December). Closing of the drifts. Sir Hercules Robinson, Governor, Cape. Annexation of British Bechuanaland to Cape Colony. Entry of Cape Colony into Universal Postal Union. Jameson Raid.

1896 Surrender of Jameson. Arrest of members of the Reform Committee in Transvaal. Trial of Dr. Jameson. Death of General N. J. Smit. P. J. Joubert, Commandant-General. M. T. Steyn elected President of Orange Free State on retirement of President Reitz owing to ill-health. Third Sprigg Ministry (Cape). Rising of Matabele in Rhodesia. Meeting of Cecil Rhodes with Matabele Chiefs. Heavy loss of cattle by rinderpest.

1897 Sir Alfred Milner, Governor, Cape. Railway opened from Cape Town to Bulawayo. Natal joins Customs Union. Escombe Ministry (Natal). Binns Ministry (Natal). Zululand annexed to Natal. British annexation of Amatongaland. Native rebellion in Griqualand West. South African Postal Union: Cape, Natal, Orange Free State, South African Republic.

1898 Schreiner Ministry (Cape). Fourth election of Kruger as President.

1899 Conference at Bloemfontein between Sir A. Milner and President Kruger. Hime Ministry (Natal). Second Anglo-Boer War declared (11th October). Sieges of Ladysmith and Kimberley. Battles of Dundee, Elandslaagte, Colenso, and Magersfontein. Imperial Penny Postage adopted by Cape Colony.

1900 Surrender of General Cronje at Paardekraal. Occupation of Bloemfontein, Johannesburg, and Pretoria. Retirement of President Kruger to Holland. Fourth Sprigg Ministry (Cape). Amalgamation of Union and Castle Steamship Lines.

1901 Death of Queen Victoria. Duke and Duchess of Cornwall at the Cape (present King and Queen). Sir Walter Hely-Hutchinson, Governor of the Cape. Lord Milner, Governor of the Transvaal and High Commissioner. *Bubonic plague* in Cape Town. Sir Henry McCallum, Governor of Natal. Third Parliament (Natal).

1902 Peace of Vereeniging (31st May). Death of C. J. Rhodes. Sir Arthur Lawley, Lieutenant-Governor of Transvaal. Visit of Right Hon. Joseph Chamberlain to South Africa. Discovery of Premier Diamond Mine in Transvaal.

1903 Vryheid and Utrecht annexed to Natal. Sutton Ministry (Natal). Fourth Parliament (Natal).

1904 Death of ex-President Kruger. Jameson Ministry (Cape). Eleventh Parliament (Cape). Introduction of Chinese labour for Transvaal mines. Census of population in Cape Colony, Natal, Transvaal, and Orange Free State.

1905 Lord Selborne, High Commissioner for South Africa and Governor of Transvaal on retirement of Lord Milner. British Association meetings in South Africa. Opening of Victoria Falls Bridge. Smythe Ministry (Natal). Passing of School Board Act (Cape).

1906 Constitutions given to Transvaal and Orange Free State. Botha Ministry (Transvaal). Visit of the Duke and Duchess of Connaught. Rising under Bambata in Natal. Moor Ministry (Natal). Fifth Parliament (Natal).

1907 Congo Free State annexed to Belgium. Sir Matthew Nathan, Governor of Natal. Passing of Asiatic Registration Act in Transvaal; opposition of Asiatics to the measure. Sir Hamilton Goold-Adams, Governor of Orange River Colony. Fischer Ministry (Orange River Colony). Memorandum by Lord Selborne (High Commissioner) on Closer Union of South African Colonies. Resolution of Mr. F. S. Malan in Cape House of Assembly as to advisability of promoting a Union of South Africa. Conference of Colonial Premiers in England.

1908 Meeting of Inter-Colonial Conference in Pretoria. Resolutions moved by General J. C. Smuts as to calling of the *National Convention*. Meeting of the *National Convention* at Durban under the Presidency of the Right Hon. Sir J. H. (Lord) de Villiers, P.C. Merriman Ministry (Cape). Passive resistance movement amongst Indians and passing of Second Asiatic Registration Act in Transvaal.

1909 Meetings of the *National Convention* in Cape Town and Bloemfontein. Passing of the South Africa Act by Imperial Parliament. Death of Hon. J. H. Hofmeyr. Loss of the s.s. "Waratah" between Durban and Cape Town. Lord Methuen, Governor of Natal. Death of Sir Donald Currie, founder of the Castle Steamship Company.

1910 Death of King Edward VII. **Constitution of the Union of South Africa** (31st May). Lord Gladstone, Governor-General. Return of Lord Selborne to England. General Louis Botha, Prime Minister of the Union. (October) Arrival at Cape Town of T.R.H. the Duke and Duchess of Connaught and the Princess Patricia. Laying of foundation stone of Union Buildings, Pretoria. Donation of £500,000 towards a *Teaching University of South Africa* announced by Trustees of the Beit Fund and Sir Julius Wernher. Wireless telegraphy station established at Durban. Sir Richard Solomon appointed High Commissioner for Union in London.

1911 Census of population (7th May). Europeans 1,276,242; natives and coloured, 4,697,152. Wireless telegraph station opened at Slangkop (Cape Peninsula). Official visit to Union of General Sir Ian Hamilton, Inspector-General of Oversea Forces. General Botha, Sir David Graaff, and Hon. F. S. Malan visited England to attend Imperial Conference. Indian agitation in Transvaal. New Law Courts opened at Johannesburg.

1912 Reorganization of Union Public Service. Defence system of Union laid down in Defence Act. Resignation of General Botha and formation by him of new Ministry. Establishment of Union Land and Agricultural Bank. Arrival in South Africa of Earl Grey, and unveiling of Rhodes Memorial on Groote-Schuur Estate, Cape Peninsula.

1913 Miners' strikes and riots on Witwatersrand. Establishment of National Botanical Gardens at Kirstenbosch (Cape Peninsula). Indian riots and disturbances in Natal, and march of Natal Indians into Transvaal. Death of Sir Gordon Sprigg. Celebration of Livingstone centenary. New harbour works at East London commenced. Death of Sir Richard Solomon.

1914 Grave industrial disturbances on Witwatersrand and elsewhere, and proclamation of martial law. Right Hon. W. P. Schreiner appointed High Commissioner for the Union of South Africa in London. Departure of the Indian leader, Mr. M. K. Gandhi, for India. Outbreak of European War. Defence of South Africa undertaken by Union Government, and Imperial troops released for service in Europe. Sir James Rose-Innes appointed Chief Justice of South Africa. Viscount Buxton assumed office as Governor-General. *Governor-General's Fund* inaugurated for purposes connected with the War. Outbreak of rebellion. Martial law proclaimed. Capture of General De Wet, and suppression of rebellion. Military expedition to German South West Africa by Union Forces. Luderitzbucht (South West Africa) occupied by Union Forces.

1915 Surrender of German Forces in South West Africa to General Botha (9th July). South-West Africa Protectorate and the Union linked up by rail. First public function held in amphitheatre of Union Government Buildings, Pretoria, celebrating General Botha's conquest. Offer of Union Government to raise a volunteer contingent for service in Europe. Second Parliament of the Union. Anti-German riots throughout the Union.

1916 Union Expeditionary Force in command of General Smuts dispatched to German East Africa. Outbreak of bubonic plague near Theunissen, Orange Free State. Death of ex-President Steyn. Troop train disaster with loss of life in Hex River Mountains, Cape Province.

1917 Return of General Smuts from East Africa. Departure of General Smuts for England to attend sittings of Imperial War Cabinet. Defeat of Chief Mandume in Ovamboland. Death of Sir Starr Jameson. First South African Trade Union Congress at Johannesburg.

1918 Census of European population (5th May); total, 1,421,781, exclusive of 29,208 persons absent from the Union on war service. Constitution of Universities of South Africa, Cape Town, and Stellenbosch. General Smuts and the Hon. H. Burton attend Imperial Conference in England. Sinking of "Galway Castle" by enemy action; great loss of life, including many prominent South Africans. Signature of Armistice with Germany (11th November). Epidemic of influenza (with pneumonia); estimated mortality, 11,726 white, 127,745 coloured. General Botha proceeds to Europe to participate in Peace Conference.

1919 Native disturbances at Bloemfontein, Johannesburg, and Pretoria. Lord Buxton's term of office as Governor-General extended to June, 1920. Ministry of Health created in the Union. The Union granted the mandate for the government of the South West Africa Protectorate. Closing of principal copper mines in Namaqualand. Return of South African contingents from Europe. Nationalist Party deputation to Europe in connexion with the Peace discussions. Death of the Right Hon. W. P. Schreiner. Conclusion of peace with Germany (Treaty of Versailles, 28th June), Generals Botha and Smuts signatories on behalf of the Union. Death of Gen. the Right Hon. L. Botha. Treaty of Peace and South West Africa Mandate passed in Special Session of Parliament.

1920 General the Right Hon. J. C. Smuts appointed Prime Minister. Signing of Final Peace Treaty. Delimitation Commission. Native strike on the Rand. General Parliamentary Election, 10th March; reconstitution of Ministry under Gen. Smuts. Flight from Cairo to Cape successfully accomplished by Colonel (now Sir) H. E. van Ryneveld and Major (now Sir) Quinton Brand. International Labour Conference at Washington, U.S.A.; South Africa represented. Gift by Mr. Davis, of Durban, of £20,000 for training ship to train boys for mercantile marine. Centenary of 1820 Settlers. The *Grahamstown Journal*, founded 1831, pioneer journal of South Africa, ceased publication. First Conference of Empire Statisticians in London. Lord Buxton, Governor-General of the Union, retires. H.R.H. Prince Arthur of Connaught appointed Governor-General. Native riot at Port Elizabeth; 25 persons killed.

1921 Amalgamation of South African and Unionist Parties and General Election (February); third Cabinet formed by General Smuts. Sir Edgar Walton, K.C.M.G., appointed High Commissioner for the Union in London. Death of Sir Maitland Park, editor of the *Cape Times*. Board of Trade and Industries established. Second complete Census of the Union (3rd May); final results: total European population in the Union, 1,519,488; total non-European population, 5,409,092. Defiance of authority by native religious sect ("Israelities") at Bullhoek Location, near Queenstown, culminating in armed conflict with Police; nearly 200 natives killed and over 100 prisoners; leader ("Prophet Enoch") and principal followers tried for sedition. Imperial Conference held in London; General Smuts, Colonel Mentz, and Sir Thomas Smartt, South African representatives. South African Reserve Bank brought into operation (30th June). Royal Proclamation of end of the War (31st August). British war assets to the value of £2,000,000 in South Africa acquired by Union Government. Defence of South Africa completely taken over by the Union Government; Cape Town Castle handed over to the South African nation and Imperial command withdrawn. South African training ship "General Botha" placed in commission at Cape Town. Three ships of the Imperial Navy transferred to the Union Government as nucleus of South African Fleet. Diamond mines completely closed down in Kimberley; economic depression accentuated. Union Trade Commissioner appointed on the continent of Europe, stationed at Milan.

1922 Prolonged industrial struggle in the Transvaal—strike on coal mines, in steel industry, and at the Victoria Falls Power works on the Witwatersrand. Gold-mining industry brought to a complete standstill. Repatriation of native employees on a large scale. Acts of violence in different parts of the Reef area. Declaration of general strike followed by widespread revolutionary movement in the mining districts. Martial law proclaimed (10th March) and Government forces mobilized. Outbreak suppressed after a week's fighting, resulting in numerous casualties. Work resumed on the mines. Death of General Christian de Wet. Commencement made with erection of grain elevators in the Union and electrification of Glencoe–Maritzburg railway. University

of the Witwatersrand established (1st March). Moçambique Convention denounced by Union Government (1st April) and negotiations for new agreement initiated. Rhodesian delegation at Cape Town to discuss terms of entry into Union. Rebellion of Bondelzwart Hottentots in South West Africa. Military, police, and aeroplanes in action. Investigation by Union Government as to the possibility of establishing a new Union harbour on the Zululand coast. Government agreement with the Marconi Company for the erection of a high-power wireless station for direct communication with England (7th September). Inauguration of the Witwatersrand University (4th October). Referendum taken in Rhodesia on question of entry into the Union (27th October); Union Government's terms rejected (8,774 votes against, 5,989 for). South African trade delegation to East Africa.

1923 Reconstruction of the Union Defence Forces. Restarting of diamond-mining operations in Kimberley. Mine disasters at the Simmer & Jack and City Deep Mines. Floods in the Cape Province and South West Africa. Death of Khama, Paramount Chief of the Bechuanas. Partial renewal of Moçambique Convention. Admission of first woman advocate in South Africa. Death of Mr. S. S. Hough, H.M. Astronomer. Incorporation of Southern Rhodesia as part of His Majesty's Dominions (12th September); establishment of responsible government (1st October). British Empire Conference sessions commenced in London (1st October); South Africa represented by General the Right Hon. J. C. Smuts, Senator the Hon. N. J. de Wet, and the Hon. H. Burton. Reported discoveries of platinum in Waterberg District, Transvaal. Termination of office of Prince Arthur of Connaught; appointment of the Earl of Athlone as Governor-General of the Union. Visit of H.M.S. "Hood" and "Repulse," and light cruisers.

1924 Visit of Professor W. J. Hussey, Director of the Michigan University Observatory, to select a site for an astronomical station in South Africa. One-day flight by military aeroplane from Cape Town to Pretoria. Assumption of office by the Governor-General, the Earl of Athlone (21st January). Death of Sir Cornelis Wessels, Administrator of the Orange Free State; appointment of Senator the Hon. E. R. Grobler as his successor. Bomb disaster at Kuruman military display; 4 killed and 32 injured. Dissolution of House of Assembly (9th May). General Election (17th June). Formation of Ministry by General the Hon. J. B. M. Hertzog. New portfolio of Labour created (August). Visit of the members of the British and Canadian branches of the Empire Parliamentary Association, headed by the Right Hon. J. H. Thomas, Colonial Secretary, and Lord Burnham (August). Railway accident on Durban–Johannesburg line; 4 killed and 18 injured (5th October). Train wrecked on Natal line between Heidelberg and Balfour (28th October). New customs agreement between Union and Rhodesia negotiated.

1925 Severe floods in Natal and Orange Free State. Railway accident in Natal; fireman, driver, and some natives drowned. Riot of natives in Bloemfontein Location. Prince of Wales visits South Africa. Union reverts to gold standard. Expedition to Kalahari to investigate irrigation possibilities. Afrikaans constituted an official language. Revised customs tariff introduced. Reserve Bank opens branches at Johannesburg, Cape Town, Durban, Port Elizabeth, and East London. Experimental air mail service between Cape Town and Durban proved successful. Shipping strike. Amalgamation of National Bank of South Africa with Barclays, London. Record maize shipments. Loss of maize-laden steamers "Margarita" and "Competitor." President Kruger's centenary. "Groot Constantia" destroyed by fire. Sir Frederick de Waal, Administrator of Cape Province retires. Appellate Court decides native women exempt from Transvaal Native Pass Ordinance, No. 43 of 1902. Appointment of Trade Commissioner in United States of America. New Cape Central Railway acquired by Government.

1926 Inland penny postage reintroduced (1st January). First visit of American tourists. Alan Cobham completes round flight by aeroplane England to Cape via Egypt. One hundred British farmers tour Union and Rhodesia. Joint sitting both Houses of Parliament to consider "Colour Bar Bill." Railway disaster at Salt River; 15 persons killed. Destructive fire at Witbank Colliery. Royal Air Force with three aeroplanes fly from Egypt to Cape and return to England. Disastrous cane fire in Natal; 13 natives perish. "Carnarvon Castle," first motor-driven regular mail liner trading with South Africa, arrives. Government delegation proceeds to India. General Hertzog, Prime Minister, attends Imperial Conference. Delville Wood Memorial unveiled. Interment of ashes of Miss Emily Hobhouse, National Memorial to Women, Bloemfontein.

§ 8. Obituary.

1925 J. Rochefort Maguire, C.B.E., Chairman of Chartered Company and Rhodesian Railways. Hon. C. R. Arnold, Senator, Cape Province. Hon. Joseph Baynes, C.M.G., ex-Member Natal Legislative Council. Dr. Anna Bliss, President Emeritus Hugenot University College. Hon. William Ross, ex-Member Cape Legislative Council. Hon. J. Rissik, Member of Railway Board. John Fairbairn, Clerk of the Senate. Ernest Granville, South African author and journalist. Major-General Sir H. T. Lukin, K.C.B., C.M.G., D.S.O.

1926 Hon. D. C. Uys, ex-Member Natal Legislative Council. Rev. D. J. Pienaar, D.R. Minister, Uitenhage. Hon. Sir Malcolm Searle, Kt., Judge President, Cape Provincial Division. Right Hon. J. X. Merriman, P.C., ex-Prime Minister, Cape of Good Hope. P. J. du Toit, Secretary for Agriculture. Hon. C. G. Maasdorp, ex-Judge of Appeal. Hon. D. Ward, ex-Judge, Orange Free State. Senator the Hon. I. W. B. de Villiers. Dr. J. D. F. Gilchrist, Marine Biologist. Hon. Thos. te Water, ex-Minister, Cape of Good Hope. J. Brand Wessels, M.L.A. (Bethlehem). Senator P. K. Fraser (Natal).

For considerations of space, the obituary of prominent South Africans from the date of Union up to and including the year 1924 has been omitted in this issue of the *Official Year Book*. A continuous list of events occurring in these years will be found in *Year Book* No. 7.

PART II.

THE SOUTH AFRICAN HIGH COMMISSION, BASUTOLAND, BECHUANALAND PROTECTORATE, AND SWAZILAND.

INTRODUCTORY.

SOUTH AFRICAN HIGH COMMISSION.

1. **The Office of High Commissioner.**—The Office of High Commissioner in and for South Africa was created by Letters Patent in 1878. In 1879 a second High Commissioner was appointed, to whom was assigned South-Eastern Africa, including Zululand and Amatongaland; but this arrangement ceased in 1881, when a Special Commissioner for Zulu affairs was appointed, who was also Governor of Natal (which now includes Zululand and Amatongaland). The High Commissioner for South Africa, who, under the Commission of 1889, was the officer for the time being administering the Government of the Cape, now represents the Crown in all matters occurring in South Africa beyond the limits of the Union and Southern and Northern Rhodesia. He was, till 1899, charged with the conduct of British relations with the South African Republic (Transvaal) and the Orange Free State, as well as those with native states and tribes outside the Colonies of the Cape and Natal, including Swaziland, which was administered by the Government of the South African Republic under the Convention of 1894.

The High Commissioner is Governor of Basutoland, and supervises the affairs of the Bechuanaland Protectorate and of Swaziland.

Prior to the 1st October, 1923, Southern Rhodesia was administered by the British South Africa Company, and the High Commissioner exercised certain powers of control under the Southern Rhodesia Order-in-Council, 1898. On the 12th September, 1923, the territory was annexed to His Majesty's Dominions as the Colony of Southern Rhodesia. On the 1st October, 1923, Responsible Government was established in the Colony, and on that date Lieutenant-Colonel Sir J. R. Chancellor, G.C.M.G., D.S.O., assumed office as Governor and Commander-in-Chief. Upon the establishment of Responsible Government, the Order-in-Council of 1898 lapsed, but under the Constitution Letters Patent, the High Commissioner was vested with certain powers and functions in regard to native administration, and the Southern Rhodesia Order-in-Council, 1920, whereby the Native Reserves were vested in the High Commissioner, was continued in full force and effect.

On the 1st April, 1924, Northern Rhodesia, which had previously been administered by the British South Africa Company, and over which the High Commissioner had exercised certain powers of control under the Northern Rhodesia Order-in-Council of 1911, came under the direct administration of the Crown. The new Government was constituted under the Northern Rhodesia Order-in-Council, 1924, which revoked the Order-in-Council of 1911, and provision for the establishment of a Legislative Council was made by the Northern Rhodesia (Legislative Council) Order-in-Council, 1924. Mr. H. J. Stanley, C.M.G. (now Sir H. J. Stanley, K.C.M.G.), assumed office as the first Governor and Commander-in-Chief on the 1st April, 1924.

The office of High Commissioner, which was formerly held by the Governor of Cape Colony, was, by a Commission dated the 6th October, 1900, vested in Lord Milner, and by a similar Commission dated the 15th March, 1905, in Lord Selborne. Since 1910 the Office has been vested, by separate Commission, in the successive Governors-General of the Union of South Africa.

2. **Principal Officers.**—The following list gives the names of the High Commissioner and the principal officers on his staff:—

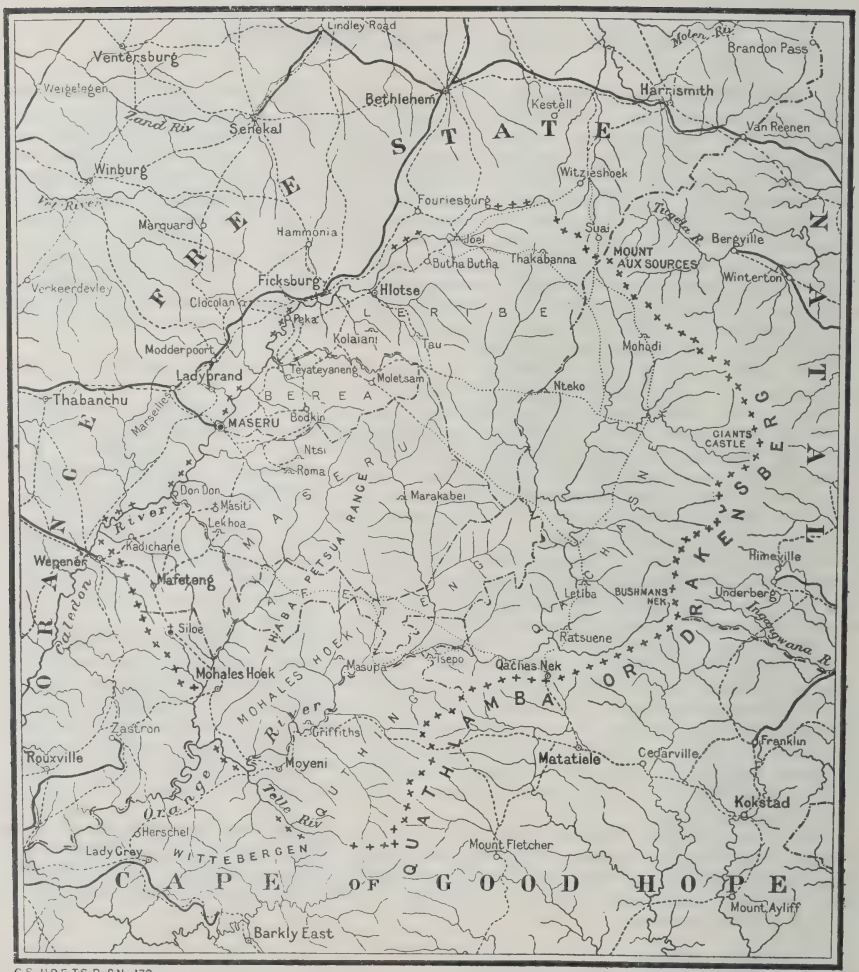
High Commissioner.—Major-General the Earl of Athlone, G.C.B., G.C.M.G., G.C.V.O., D.S.O.

Imperial Secretary and Accountant.—Captain the Hon. B. E. H. Clifford, C.M.G., M.V.O.

Assistant Imperial Secretary and Chief Clerk.—Shirley Eales, O.B.E.

Auditor.—A. Warren.

BASUTOLAND



G.S., U.D.F. T.S. Ref. No. 170.

G.P.W., PRETORIA 1919.

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Railway ——

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Scale of Miles

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CHAPTER I.

BASUTOLAND.

§ 1. History.

1. **Origin.**—The Basuto of Basutoland appear to have been composed of the remnants of several tribes which were broken up in the wars waged by Moselikatze, the King of the Matabele, in the early years of the last century. These remnants were united in about 1818 under Moshesh, a chief of great ability, who ruled for many years. In 1852 war broke out between Moshesh and the British Government; the Basuto were defeated by Sir G. Cathcart at the battle of the Berea Mountain, and Moshesh sent in his submission and made peace. A few years later, in 1856, disputes arose between Moshesh and the Orange Free State respecting boundary questions, and hostilities resulted which lasted from 1856 to 1858, with indecisive results, and were concluded by the *Treaty of Aliwal*, 1858. Collisions nevertheless frequently recurred.

In 1865 the war broke out afresh, and Moshesh again claimed the protection of the Governor, Sir Philip Wodehouse. He declined to interpose actively, but dispatched a British Commissioner to Thaba Bosigo, the capital of Basutoland, to settle the difficulties. This measure met with little success, and in the end the Boers were successful, and Moshesh sued for peace. At the Treaty of Thaba Bosigo, April, 1866, he recognized the permanent cession of a portion of his district and acknowledged himself a subject of the Orange Free State.

The peace was of short duration, the war was renewed, and the Basuto, pressed by the Boers, were on the brink of total defeat, when they again appealed to be taken under the authority of the Queen. In January, 1868, Sir Philip Wodehouse received authority to recognize Moshesh and his tribe as British subjects, and for the incorporation of their territory. This was carried into effect by a proclamation dated 12th March, 1868, and the event is now commemorated by observing this date as a public holiday, known as *Moshoeshoe's Day.*

2. **Annexation to the Cape Colony.**—The country remained in a very unsettled condition until it was annexed to the Cape Colony by an Act of the Cape Legislature, No. 12 of 1871. The Act expressly declared that Basutoland was not to be subject to the general law of the Colony, and gave the Governor power to legislate for it by proclamation, and to extend to it by proclamation any Cape Act not otherwise in force therein.

In 1884 the territory was disannexed from Cape Colony and the Government carried on under the direct control of the Imperial Government, *vide* Order-in-Council of February 2nd, 1884, which was proclaimed and brought into force by Proclamation 75A of March 18th, 1884.

§ 2. Description.

1. **Physical Features.**—Basutoland forms an irregular oval within the Union of South Africa; the main axis, about 150 miles in length, lying in a north-easterly direction. The Orange Free State Province, Natal and the Cape Province form its boundaries. Its area is 11,716 square miles, or nearly the same as that of Belgium.

It lies between 28° 35′ and 30° 40′ south latitude.

A portion of the great Drakensberg range of mountains forms the eastern boundary of Basutoland. Peaks in this range rise to heights of eleven and twelve thousand feet. Westward the country is occupied by the Malutis, mountains inferior in height to the Drakensberg. They form a jumbled mass so closely packed that the valleys are of the narrowest, and there is little ground which can be cultivated. It is only along the western border that mountains give place to hills and the cultivation of larger portions of land becomes possible.

2. **Meteorology.**—The range of temperature is approximately from a maximum of 93° F. to a minimum of 11° F. The average rainfall is 30 inches.

§ 3. Administration.

1. **Central and District Administration.**—The territory is now governed by a Resident Commissioner under the direction of the High Commissioner for South Africa, the latter possessing the legislative authority, which is exercised by proclamation.

The chiefs adjudicate on cases between natives, with a right of appeal to the Magistrates' Courts, where all cases between the natives and Europeans are brought.

For fiscal and other purposes the country is divided into seven districts, namely, Maseru, Leribe, Mohale's Hoek, Berea, Mafeteng, Quthing, and Qacha's Nek. Each of the districts is sub-divided into wards, presided over by hereditary chiefs allied to the Moshesh family.

2. **Basutoland Council.**—There is a Basutoland Council consisting of a hundred members, all natives, ninety-five being nominated by the chiefs and five by the Government. The Council is consultative and advisory, and deals chiefly with the domestic affairs of the nation. It has no executive powers.

3. **Principal Officers.**—The following list gives particulars of the principal officers on the establishment:—

Resident Commissioner: John Christian Ramsay Sturrock.
Deputy Resident Commissioner: John Pears Murray, C.B.E.
Government Secretary: Reginald Montagu Bosworth Smith.
Financial Secretary: Thomas Alfred Williams.

Assistant Commissioners:

Leribe District.....	Frank Layton Foord.
Mafeteng District.....	Edward D'Urban Blyth.
Berea District.....	James Hugh Sims.
Mohale's Hoek District....	Andrew T. Bond.
Quthing District.....	Ernest Godfrey Dutton.
Maseru District.....	Hugh Ashton.
Qacha's Nek District.....	Frank Jenner.

Principal Medical Officer: Niel Morrison Macfarlane, M.D.
Superintendent, Leper Asylum: Peter Donald Strachan, M.D.

Medical Officers:

Leribe District.....	John Wightman Stirting.
Mohale's Hoek District....	Kenneth Dyke.
Mafeteng District.....	Harold Rundle Fitz Nattle.
Quthing District.....	Emile Edouard Charles Vollet.
Qacha's Nek District.....	Henry A. Murray.
Maseru District.....	Hamilton Dyke.

Principal Veterinary Surgeon: Frank Arthur Verney, O.B.E.
Director of Public Works: Harrison Wyatt Gibson.
Director of Education: Frederick Hugh Dutton, M.A.
Director Government Industrial School: H. R. Vimpany.
Comptroller of Stores: Stephen Bernard Dutton.
Agricultural Officer: Lawrence Ford Wacher.
Chief Clerk, Master of Court, and Registrar: Henry James Godden.
Accounting Clerk: Reginald Ernest Goodman.
Deputy Assistant Commissioner, Butha Buthe: Douglas Walsham How.

Inspectors of Police:

Lockhart Clementi.	Douglas St. Pierre Bunbury (Staff Officer).
Thomas Brereton Kennan, M.C.	Reginald Collier.
Francis Arthur Piers.	

Sub-Inspectors:

Rowland Webster Booth.	Harry Alston Smith.
Ernest Edward Strong.	Geoffrey Thomas Stanley Clarke.
Reginald Seymour Balfe.	Frederick Drummond Warren.
James Smith.	

4. **Capital.**—The Capital town is Maseru, which is the headquarters of the Government. It is situated on the Caledon River 86 miles by rail east of Bloemfontein. The population in 1921 was given as 399 Europeans, 1,890 natives, and 30 other coloured persons.

§ 4. Population.

General.—Censuses of the population of Basutoland were taken in 1904, 1911, and 1921, simultaneously with censuses taken in other parts of South Africa. No census was, however, taken in 1918. The following tables give particulars of the population at the three censuses mentioned:—

(i) POPULATION OF BASUTOLAND, 1904, 1911, AND 1921.

YEAR.	European.	NATIVE AND COLOURED			Grand Total.
		Bantu.	Mixed and Other Coloured.	Total.	
1904—					
Male	520	163,216	137	163,353	163,873
Female	375	184,515	85	184,600	184,975
TOTAL	895	347,731	222	347,953	348,848
1911—					
Male	799	182,583	720*	183,303	184,102
Female	597	219,224	584*	219,808	220,405
TOTAL	1,396	401,807	1,304*	403,111	404,507
1921—					
Male	866	222,342	627†	222,969	223,835
Female	737	273,595	614†	274,209	274,946
TOTAL	1,603	495,937	1,241†	497,178	498,781

* Including 8 males and 3 females, race not specified.
† Including 172 Asiatics—121 males, 51 females.

(ii) POPULATION OF BASUTOLAND IN DISTRICTS, 1921.

DISTRICT.	EUROPEAN.			NATIVE AND COLOURED.			GRAND TOTAL.
	Males.	Females.	Total.	Males.	Females.	Total.	
Leribe	142	118	260	46,484	61,521	108,005	108,265
Berea	78	54	132	24,195	32,615	56,810	56,942
Maseru	309	303	612	44,669	54,975	99,644	100,256
Mafeteng	139	123	262	30,131	37,369	67,500	67,762
Mohale's Hoek	88	71	159	27,272	33,577	60,849	61,008
Quthing	68	47	115	17,533	20,614	38,147	38,262
Qacha's Nek	42	21	63	32,685	33,538	66,223	66,286
TOTAL	866	737	1,603	222,969	274,209	497,178	498,781

(iii) DENSITY, ETC., OF POPULATION (OTHER THAN EUROPEAN) OF BASUTOLAND, 1904, 1911, AND 1921.

Description.	1904.	1911.	1921.
Number of persons to the square mile	29·70	34·41	42·44
Number of acres per head of the population	21·55	18·60	15·08
Number of occupied huts to the square mile	7·40	9·54	—
Number of persons to an occupied hut	4·01	3·61	—

(iv) RELIGIONS OF BASUTOLAND POPULATION, 1921.

Religions.	European.	Bantu.	Other.	All Races.
Christian—				
French Protestant Church and Paris Evangelical Mission	53	66,883	272	67,208
Church of Rome	154	38,894	58	39,106
Anglican Communion	770	18,839	270	19,879
African Methodist Episcopal (including Ethiopian)	—	6,181	—	6,181
Primitive Methodist	146	+	118	1,692
Wesleyan Methodist		1,428		
Dutch Churches	221	320	56	597
Presbyterian	190	—	14	204
Others	34	3,204	10	3,248
TOTAL	1,568	135,749	798	138,115
Non-Christian—				
Jewish	4	—	—	4
Hindu	—	—	14	14
Mohammedan	—	—	102	102
Other	—	—	6	6
TOTAL	4	—	122	126
No Religion	2	359,117	2	359,121
Unknown, Unspecified, and Indefinite	29	1,071	319	1,419
GRAND TOTAL	1,603	495,937	1,241	498,781

§ 5. Vital Statistics and Migration.

1. **Births, Deaths and Marriages.**—The registration of births is not compulsory. Registers are kept in District Offices, but are only made use of by Europeans. The registration of deaths is also not compulsory, and no statistics can be given under these two heads.

All Christian and Civil marriages are registered in the Office of the Government Secretary, Maseru. The following figures represent the number of marriages so registered during the years specified :—

MARRIAGES REGISTERED IN BASUTOLAND.

Year	1917	1918	1919	1920	1921	1922	1923	1924
Number	574	486	734	688	492	639	630	724

Most of the marriages among the natives are contracted according to native custom, the usual dowry of cattle being paid.

2. **Migration.**—There are no restrictions governing the entrance of Europeans into Basutoland, excepting under a recent proclamation whereby all *former enemy aliens* must first obtain a permit from the Government Secretary before they can enter the Territory. Every native entering or leaving the Territory must be in possession of an official pass.

§ 6. Public Health and Sanitation.

1. **Basutoland Medical Service.**—The Basutoland Medical Service, which supervises the public health and sanitation of the Territory, is organized on a departmental basis. Administration is in the hands of the Principal Medical Officer, who is responsible for all expenditure under the Medical Vote. The Leper Asylum is a separate department with a special vote.

In addition to public health and sanitation, the Medical Department administers the Government Hospitals and Dispensaries, and provides free medical attendance for all Government officials and their families. The hospitals and dispensaries were primarily inaugurated to combat witchcraft, which was extensively practised when the present Administration took over Basutoland from the Cape Colony.

Beginning in 1885 with one medical officer and a so-called native hospital, which was little more than a couple of rooms, without nurses or proper furniture and appliances, the system has gradually developed, until now there are five Government Hospitals, which are well equipped on modern lines, and staffed, partly with trained European, and partly with native nurses. The Maseru Hospital is ranked as a Class I hospital by the Cape Medical Council. Each hospital has an out-patient department and dispensary, at which all Basutoland natives are treated at certain hours at a fee of 1s. for each attendance. Native in-patients pay nothing. A few beds are reserved for Europeans. Officials and their wives, when admitted to hospital, pay maintenance fees, which are based on a sliding scale; other European patients pay 15s. per diem.

All fees collected are paid into revenue. With the exception of these fees the whole cost of administration is borne by Government.

There is a Government Medical Officer for each district, and at some sub-stations there are private practitioners, who are paid at Cape District Surgeons' rates for attendance on officials and for medico-legal work.

BASUTOLAND HOSPITALS, 1924.

(*a*) Institutions and Staff—	Number.	(*b*) Patients in 1924—	Number.
Hospitals	5	In-patients	2,265
Beds	144	Out-patients	57,194
Medical Staff (all non-resident)	9		
Nursing Staff—		(*c*) Revenue and Expenditure in 1924–25.	
European	15		£
Native Dispensers and Assistants	11	Revenue	2,420
Other Native Employees	30	Expenditure (including Salaries of Medical Staff)	22,179

2. **Control of Public Health and Sanitation.**—This is provided for under the Medical and Pharmacy Proclamation, No. 17 of 1921, and the Public Health Proclamation, No. 18 of 1921.

§ 7. Education.

General.—The work of education in the Territory is carried out almost exclusively by the missionaries. In December, 1924, there were 522 elementary schools for native scholars, with 40,821 pupils on the roll, and six institutions with 601 pupils. The total average attendance in schools and institutions was 29,267. There is a Government Industrial School at Maseru, which was erected at a cost of approximately £10,000. Native youths are here instructed in carpentry, wagon-making, blacksmith's work, building and stone-cutting. There are six European schools with a total of 131 scholars.

§ 8. Labour and Wages.

General.—During the year ended 31st December, 1924, passes to leave the Territory were issued to 88,627 natives for the purpose of working on mines, farms, domestic and miscellaneous work. Labour passes issued during 1925 numbered 70,048. There is very little scope for labour in the Territory. Wages for road-making and general labour range from 1s. 3d. to 1s. 6d. per diem. The conditions governing the cost of living approximate those existing in the contiguous portions of the Orange Free State.

§ 9. Administration of Justice.

1. **Administration of Justice.**—The Basutoland Courts of law consist (*a*) of the Resident Commissioner's Court, which constitutes the Supreme Court of Basutoland, and from which an appeal lies to the Privy Council; (*b*) Courts of Assistant Commissioners, who may inflict sentences not exceeding two years imprisonment with hard labour, or fines not exceeding £50, with civil jurisdiction up to £500.

The laws administered are the same as the Cape of Good Hope up to 18th March, 1884, until repealed or altered by proclamation of the High Commissioner, who is also empowered to make by proclamation such laws as may be necessary for the peace, order, and good government of the Territory. Native law, so far as it is not repugnant to European law is administered by Basuto Chiefs and Headmen.

2. **Prisons.**—There are seven gaols and two lock-ups in the Territory, and regulations as to the government of prisons have been promulgated by High Commissioner's proclamation.

3. **Police.**—The Basutoland Mounted Police consists of the Resident Commissioner, as Commanding Officer, four inspectors and eight sub-inspectors, two chief constables, three constables, and 284 native non-commissioned officers and privates. There are also 57 temporary privates (un-uniformed, but wearing an arm badge).

§ 10. Defence.

Organization for Defence.—During the late war 165 Europeans went on active service, and 1,397 natives were sent overseas with the South African Native Labour Contingent. Besides these, a number of natives went to South-West and East Africa as drivers, and in other capacities, but no record of them is obtainable.

§ 11. Land and Agriculture.

1. **Land Settlement.**—There is no ownership or tenure of land in the Territory. Land is held under the communal system, and is apportioned to the people by the chiefs. There are no farmers in the country other than natives, the European population consisting mainly of Government officials, missionaries, traders, and labour agents.

No effort has as yet been made in the way of irrigation. The rivers are swift and generally flow between high banks. At the different Government stations a fair supply of good water is conveyed in pipes from fountains for domestic use.

2. **Agriculture.**—The principal agricultural and pastoral products are wool, mohair, wheat, maize, kaffir corn, cattle, sheep, and horses. The country is considerably overstocked at present. Efforts are being made by the Administration to improve the breed of horses by the introduction of good sires, the services of which are obtainable by the native for a nominal fee. Several thousand well-bred Merino rams were introduced some years ago, and distributed gratis among the native owners. This measure undoubtedly improved the wool, for which the Basuto obtain very good prices.

NUMBER OF LIVE STOCK AT CENSUSES OF 1904, 1911, AND 1921.

Year.	Cattle.	Horses.	Mules and Donkeys.	Sheep.	Goats.
1904	209,883	63,677	—	—	—
1911—					
Owned by Natives	432,748	86,610	1,307	1,363,680	987,009
Owned by Europeans	4,663	1,387	108	5,319	1,859
TOTAL	437,411	87,997	1,415	1,368,999	988,868
1921—					
Owned by Natives	574,415	152,325	6,284	1,854,426	894,257
Owned by Europeans (Villages only.)	6,251	1,408	300	5,286	1,101
TOTAL	580,666	153,733	6,584	1,859,712	895,358

3. **Forests.**—There are no forests, and there is very little indigenous wood. Government tree nurseries have been established, and endeavours are made to induce the natives to plant trees by supplying young trees free of cost. The land, however, is taken up for agriculture and pasture, and there is practically none to spare for forestry on any large scale.

4. **Mining and Industrial Activities.**—There are no mines in the Territory, and the chiefs and people are averse from prospecting of any kind. No industrial development has yet taken place.

§ 12. Commerce.

1. **Trade.**—There are 188 licensed traders in the territory who purchase the produce from the natives, and do a fairly large trade in blankets, clothing, prints, foodstuffs, etc.

2. **Imports and Exports.**—The following returns show the imports and exports for a series of years.

With regard to the imports, the values given in 1909 were oversea cost with the exception of colonial produce and manufactures. At present, however, the traders are only able to give the invoice cost of merchandise at the coast or wherever purchased.

The returns of exports hereunder were compiled from statistics furnished by the traders themselves; for, since the constitution of the Union of South Africa, Basutoland has received a certain proportion of the duties collected by the Union Government, and the usual customs statistics are no longer available. The last available statistics showed that in 1909 the total value of imports was £258,994, and of exports was £349,884. These figures have now been practically trebled. Wool and mohair represent the major portion of the increase in the exports.

(i) BASUTOLAND VALUE OF IMPORTS OF GENERAL MERCHANDISE, 1909 TO 1924.

	1909.	1919.	1920.	1921.	1922.	1923.	1924.
Value.....£	258,994	1,069,393	1,219,388*	556,453†	702,125‡	797,760§	821,314‖

* Including Government imports, £38,401.
‡ Including Government imports, £37,700.
† Including Government imports, £37,503.
§ Including Government imports, £30,562.
‖ Including Government imports, £33,309.

(ii) BASUTOLAND.—QUANTITY AND VALUE OF EXPORTS, 1922 TO 1924.

Description.	1922.		1923.		1924.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		£		£		£
Horses and Mules.....No.	364	1,937	250	1,462	58	430
Cattle..... ,,	2,342	8,022	1,773	6,647	242	1,048
Sheep and Goats..... ,,	2,999	1,373	734	518	253	210
Kaffir Corn.....Bags	13,984	11,319	52,570	34,536	14,628	8,865
Maize and Maize-Meal.... ,,	20,316	11,188	87,161	41,409	9,767	6,939
Wheat and Wheat-Meal... ,,	128,204	138,995	64,144	71,791	30,858	32,492
Oats and Barley..... ,,	774	558	190	88	39	23
Beans and Peas..... ,,	3,149	3,669	9,622	9,045	3,010	2,927
Mohair.....lb.	2,326,367	104,833	2,011,564	119,646	2,455,950	183,076
Wool..... ,,	12,829,330	377,333	10,264,894	513,644	11,577,384	715,665
Hides..... ,,	127,705	2,348	142,336	3,035	160,627	4,116
Skins..... ,,	82,542	1,171	89,731	1,751	99,342	2,732
Miscellaneous.....	—	6,584	—	197	—	287
TOTAL VALUE OF EXPORTS.£	—	669,330	—	803,769	—	958,810

§ 13. Railways, Roads, and Posts.

1. **Railways and Roads.**—There are no railways in Basutoland with the exception of one mile of the South African Railways which enters Basutoland at Maseru from the Orange Free State.

A good main road runs from Leribe in North Basutoland to Quthing in the south, connecting up all Government stations with the exception of Qacha's Nek, which is situated on the Drakensberg on the south-east border, and is only accessible to wheel traffic from East Griqualand. All the District stations lie on or near the border, and are connected by good roads with the nearest Union town or railway station.

The principal District stations after Maseru are: Leribe, about twelve miles from Ficksburg; Mafeteng, about sixteen miles from Wepener; and Mohale's Hoek, about thirty miles from Zastron.

Excepting the Orange River, at which there is a pont, all rivers of any size on the main road are bridged. The bridge over the Phuthiatsana or Little Caledon River, nine miles from Maseru, is deserving of notice, as being entirely of stone, and has one 80-ft. and two 40-ft. arches. The Caledon River, which forms the western and north-western borders, is bridged at Ficksburg near Leribe, Peka, and Maseru, the latter being a combined railway and road bridge. A causeway has been constructed over the Telle River, which forms the boundary between the Quthing and Herschel Districts.

2. **Posts, Telegraphs and Telephones.**—There are nine Post and Telegraph Offices, and a good many postal agencies. The postal service is administered by the Postmaster-General of the Union, and deposits and withdrawals may be made with the Union Post Office

Savings Bank at these offices. All the District offices are connected from north to south by telephone. The system is principally used by the Administration, but is also available for public use. Through telephone lines between Maseru and Ladybrand, Leribe and Ficksburg, and Mafeteng and Wepener have been completed. A new post office has been constructed at Maseru.

§ 14. Finance.

1. **Revenue.**—The Territory is financially self-supporting, the principal sources of revenue being the Native Tax, Customs, and Licences. The following table shows the Revenue collected under the different heads during a series of years :—

BASUTOLAND PUBLIC REVENUE, 1922–23 TO 1924–25.

Description.	1922–23.	1923–24.	1924–25.
	£	£	£
Native Tax	121,233	134,689	127,531
Customs and Excise	62,011	71,043	76,765
Posts and Telegraphs	7,522	8,038	8,520
Licences	7,097	7,585	7,928
Fees of Court or Office	814	783	906
Judicial Fines	1,305	2,009	1,991
Income Tax	3,755	6,773	12,997
Fees for services rendered	2,605	1,366	1,484
Interest	2,550	2,341	1,735
Wool Export Duty	—	14,128	17,189
Miscellaneous	3,645	3,858	3,962
TOTAL £	212,537	252,613	261,008

2. **Expenditure.**—The principal items of expenditure are Establishments, Police, Public Works, Medical Services, Education, and the Leper Settlement. Although a considerable amount has been expended annually as "Capital expenditure," the balance of assets in excess of liabilities on the 31st March, 1925, amounted to £78,575. The following is a statement of the expenditure in detail during a series of years :—

BASUTOLAND.—EXPENDITURE FROM PUBLIC FUNDS, 1922–23 TO 1924–25.

Description.	1922–23.	1923–24.	1924–25.‡
	£	£	£
Establishments	—	—	—
Resident Commissioner	12,554*	13,758	13,691
District Administration	12,934*	12,670	12,782
Police	35,647	36,189	36,760
Posts and Telegraphs	10,043	10,437	10,113
Administration of Justice	9,116	9,806	11,101
Public Works Department	5,811	6,526	5,663
Public Works Recurrent	20,371	20,990	22,161
Public Works Extraordinary	2,335	3,661	2,383
Medical	20,443	20,575	22,797
Education	34,681	34,813	35,836
Government Industrial School	2,323	2,437	2,429
Audit	733	†	†
Agriculture	9,984	21,806	22,929
Allowances—Chiefs, Headmen	11,290	12,448	12,324
National Council	1,830	1,950	2,193
Leper Settlement	20,845	20,036	19,081
Pensions	5,259	6,681	6,812
Miscellaneous	4,868	5,656	6,784
TOTAL ORDINARY EXPENDITURE	221,067	240,439	245,839
Expenditure from Surplus Balances	3,480	1,230	4,214
TOTAL £	224,547	241,669	250,053

* Previously shown as "Establishments."
† Provision now made under "Resident Commissioner." ‡ Subject to revision.

3. **Banking.**—There is a branch of the Standard Bank at Maseru ; and the Bloemfontein Board of Executors and Trust Company, Ltd., has opened a branch at the same place.

BECHUANALAND PROTECTORATE

CHAPTER II.

BECHUANALAND PROTECTORATE.

§ 1. History.

1. **Proclamation of British Protectorate.**—During the year 1885 Sir Charles Warren who was in command of an expedition dispatched from England to pacify Southern Bechuanaland, where for some time previously hostilities had been proceeding between the Bechuana and Boers from the South African Republic, visited the principal chiefs in Northern Bechuanaland (known as the *Bechuanaland Protectorate*), namely, Khama, Gaseitsiwe, and Sebele, and as a result a British Protectorate was proclaimed over their territories. No further steps were taken until the year 1891, when, by an Order-in-Council, dated 9th May, the limits of the Bechuanaland Protectorate were more clearly defined, and the High Commissioner for South Africa was authorized to appoint such officers as might appear to him to be necessary to provide for the administration of justice, the raising of revenue, and generally for the peace, order, and good government of all persons within the limits of the Order. Sir Sidney Shippard, the Administrator of Bechuanaland, was appointed Resident Commissioner. An Assistant Commissioner was also appointed for the Southern Protectorate and another for the Northern Protectorate, the laws in force in the Colony of the Cape of Good Hope on the 10th day of June, 1891, being declared in force in the territory, *mutatis mutandis*, and so far as not inapplicable. Subsequent legislation has been effected by proclamation of the High Commissioner.

2. **Relations with the British South Africa Company.**—For fiscal and other purposes the Protectorate was treated as a portion of the Crown Colony of British Bechuanaland until the 15th of November, 1895, when the latter was annexed to the Cape Colony. In the autumn of that year arrangements were made for the transfer of the administration of the Bechuanaland Protectorate, with the exception of certain reserves for native chiefs, to the *British South Africa Company*. The country occupied by the Bamalete Tribe, and so much of the Bora-Tshidi Barolong country as lies within the limits of the Protectorate, were transferred to the Administration of the *British South Africa Company*, Dr. L. S. Jameson being appointed Resident Commissioner therefor. The Company's police were moved down to a camp in the Protectorate, at Pitsane Potlugo. From that spot, on the 29th day of December, Dr. Jameson crossed the border of the South African Republic with his police, and marched towards Johannesburg, which was at the time in a state of great unrest. Being defeated by the Boers at Doornkop, he surrendered on the 2nd January, 1896. In consequence of this raid, the administration of the two areas above referred to was retransferred to the Imperial Government, by whom the Protectorate, in its entirety, is still governed under the name of the Bechuanaland Protectorate. It includes the Tati District, which is a portion of old Matabeleland conceded in 1887 by Lobengula to Mr. S. H. Edwards.

3. **Proclamation of Crown Lands.**—In 1895 the Chiefs Khama, Sebele, and Bathoen visited England, and each of them abandoned all rights and jurisdiction in and over certain portion of his former territory. The lands thus abandoned by them were, by Order-in-Council, dated the 16th day of May, 1904, declared Crown Lands, and all rights of His Majesty in or in relation thereto were vested in the High Commissioner for South Africa, who was empowered to make grants or leases of such lands on such terms and conditions as he might think fit, subject to any directions received from one of His Majesty's Principal Secretaries of State. Title to these lands was subsequently granted to the *British South Africa Company, Limited*, subject to certain reservations, and these lands are now known as the Tuli, Gaberones, and Lobatsi Blocks of farms.

By virtue of the Order-in-Council dated the 10th January, 1910, all other land situate within the limits of the Bechuanaland Protectorate, elsewhere than in the Tati District, was, and still is, vested in His Majesty's High Commissioner for South Africa, subject to all the provisions of the Order-in-Council of the 16th May, 1904, and to the following exceptions :—

(1) Such land as is either—
  (*a*) included in any native reserve duly set apart by proclamation; or
  (*b*) the subject of any grant duly made by or on behalf of His Majesty; and

(2) the forty-one farms known as "the Barolong Farms," held by members of the Barolong Tribe by virtue of certificates of occupation issued by the Chief Montsioa on the 28th day of March, 1895.

4. **Later Developments.**—During the period 1896–97 the existing railway line connecting the Union of South Africa with Rhodesia was constructed by the Bechuanaland Railway Company, authorized thereto by High Commissioner's proclamations.

In 1898 a limited number of farms were allotted at and in the neighbourhood of Ghanzi, in what was then the Ngamiland District of the territory, to settlers, some of whom had trekked thereto as prospectors in 1894.

In 1899 the boundaries of the Bamangwato, Batawana, Bakgatla, and Bangwaketse Native Tribes were established and defined by proclamation, and in 1909 the boundaries of the Bamalete Native Reserve were similarly fixed.

In 1911 the *Tati Concessions, Limited*, and its successors and assigns, were confirmed by Proclamation No. 2 of 1911 in the full, free, and undisturbed possession as owners of all the land within the Tati District, subject to all the terms and conditions of the said Proclamation, certain lands being assigned as a reserve for the occupation of natives. This reserve is under the control of the Government. The natives residing within it hold and occupy the land included therein, subject to such rules and regulations as are from time to time proclaimed by the High Commissioner; and, subject to certain conditions safeguarding the interests of the natives, the Company (now the *Tati Company, Limited*) retains the mining rights (including precious stones) over this native reserve.

In 1920 a European Advisory Council and a Native Advisory Council were established to advise the Resident Commissioner in matters affecting the Europeans and natives respectively.

§ 2. Boundaries, Area, and Physical Characteristics.

1. **Boundaries.**—The territory of the Bechuanaland Protectorate is bounded on the south and east by the Union of South Africa, on the north-east by Southern Rhodesia, on the north by the Zambesi and Chobe (Linyanti) Rivers, and on the west by the territory of South West Africa.

It has not been surveyed as a whole, but its area is estimated at 275,000 square miles. Its mean altitude is about 3,300 feet.

2. **Meteorology and Physical Features.**—The winter climate (May to August) is delightful. The heat during the other months is great, but there are occasional short, sudden and therefore treacherous changes from extreme heat to cold. Malarial fever is prevalent, being particularly severe in the neighbourhood of water-courses and other low-lying places, where, during and immediately after the season of the heavy rains (December to end of April), the dense bush, thick undergrowth, and rank vegetation afford excellent shelter to mosquitoes. The rainfall varies from 20 to 25 inches in a year, though heavier falls have been recorded.

The eastern portion of the territory has some fine hill scenery in comparatively close proximity to the Transvaal border. The remainder of the Protectorate, which, at first sight, appears to be perfectly flat, is, in reality, undulating, rich in grasses, shrubs, and trees, with occasional outcrops of limestone, but mostly of a sandy and waterless character. Old and well-defined river-courses indicate, however, that at one time the country was well watered, as indeed is still the case north and north-east of Lake Ngami.

§ 3. Administration.

The form of government is very similar to that which obtains in Basutoland. The territory is administered by a Resident Commissioner under the direction of the High Commissioner for South Africa, the latter possessing the legislative authority, which is

exercised by proclamation. There is also an Assistant Resident Commissioner, who is stationed at Francistown, and is Chief Magistrate of the Territory.

The territory is, for administrative purposes, divided into eleven districts, each with a resident magistrate, who is assisted in the maintenance of law and order by a force of police.

In view of the geographical position of that part of the mandatory territory of South West Africa East of longitude 21° East, known as Caprivi-zipfel, it was found expedient to provide in 1922 that the latter should be administered as if it were a portion of the Bechuanaland Protectorate.

The Headquarters of the Administration are at Mafeking, in the Cape Province.

PRINCIPAL OFFICERS OF THE ADMINISTRATION.

Resident Commissioner	Lieut.-Col. Jules Ellenberger, I.S.O., C.M.G.
Assistant Resident Commissioner	Lieut.-Col. R. M. Daniel.
Government Secretary and Director of Customs	C. L. O'B. Dutton.
Financial Secretary, Master of the Resident Commissioner's Court, and Registrar of Deeds	M. Williams.
Chief Clerk and Registrar	H. H. Price.
Crown Prosecutor	S. A. Minchin, LL.B.
Local Auditor	A. Warren.
Inspector of Education	F. H. Dutton, M.A.
Controller of Stores	A. E. Fosdike.
Resident Magistrate, Francistown District	Captain G. B. Moseley.
Resident Magistrate, Ngamiland	Captain H. B. Neale.
Resident Magistrate, Gaberones District	E. O. Butler.
Acting Assistant Resident Magistrate, Gaberones District	W. E. Mangan.
Resident Magistrate, Ngwaketsi District	Inspector G. E. Nettleton.
Resident Magistrate, Ngwati District	A. L. Cuzen.
Resident Magistrate, Lobatsi District	Captain R. O'M. Reilly.
Acting Resident Magistrate, Chobe District	Major H. D. Hannay.
Acting Resident Magistrate, Tuli Block District	E. H. M. Drury, M.B.E.
Resident Magistrate, Kweneng District	Captain A. G. Stigand.
Resident Magistrate, Ghanzi District	C. M. Ledeboer.
Acting Resident Magistrate, Kgalagadi District	Sub-Inspector W. H. Ellam.
Inspectors, B.P. Police	H. D. Hannay, G. E. Nettelton (Hon.).
Sub-Inspectors, B.P. Police	H. B. Poole, V. G. Gash, J. W. Potts, G. C. Guilbert, V. Ellenberger, H. Beeching, C. E. Betts (Hon.).
Principal Medical Officer	Donald M. MacRae, M.D., M.S.
Medical Officer, Gaberones	Duncan M. MacRae, M.A., M.D., B.S.
Medical Officer, Serowe	Desmond Drew, B.A., M.B., B.Ch.
Medical Officer, Francistown	P. Targett Adams, M.D.
Medical Officer, Ngamiland	Stanley Bachelor, M.C., M.D., F.R.C.S. (Edin.), M.R.C.S., L.R.C.P., B.S.
Chief Veterinary Officer	W. H. Chase, O.B.E., F.R.C.V.S.
Veterinary Surgeons	F. M. Hill, M.R.C.V.S.; H. M. Webb, M.R.C.V.S.
Cattle Export Inspectors	R. J. Davys, A. K. F. Hurndall.
Stock Inspectors	C. E. Betts (honorary rank of Sub-Inspector, also acts as Scab Inspector), A. Rutherford, W. Johnstone.
Scab Inspectors	R. V. Ramsbotham, C. J. Nelson.
President of the Special Court of the Bechuanaland Protectorate	G. T. Morice, K.C.
Principal of Bakgatla National School, Mochudi	R. S. Steensma, B.A.

§ 4. Population.

General.—The following gives particulars regarding the population of the Protectorate according to the censuses taken in 1911 and 1921 :—

(i) POPULATION—CENSUSES OF 1911 AND 1921.

Year.	European.	Bantu.	Asiatic.	Other Coloured.	Total.
			355		
1911....	1,692	123,303			125,350
1921....	1,743	150,185	52	1,003	152,983

(ii) BECHUANALAND—NATIVE POPULATION BY DISTRICTS, SEX, AND AGES, CENSUS OF 1921.

District.	Male.		Female.		Total.
	Under 16.	16 and over.	Under 16.	16 and over.	
Bamangwato Reserve	12,413	19,210	10,117	16,307	58,047
Bakwena Reserve	2,803	2,675	2,401	3,283	11,162
Bangwaketsi Reserve	4,581	4,003	3,878	5,004	17,466
Bakgatla Reserve	3,091	2,417	3,073	3,023	11,604
Bamalete Reserve	1,327	708	1,265	1,278	4,578
Batawana Reserve	3,550	5,433	3,244	5,222	17,449
Batlokwa	284	256	285	374	1,199
Tati District	2,870	3,579	2,468	2,960	11,877
Tuli Block	229	650	202	293	1,374
Gaberones Block	61	189	50	92	392
Lobatsi Block	264	280	224	233	1,001
Barolong Farms	846	630	740	938	3,154
Ghanzi District	350	543	302	503	1,698
Kazungula District	432	690	386	607	2,115
Nekati	177	199	185	275	836
Molopo Strip	408	242	321	314	1,285
Lehututu District	1,008	921	836	1,239	4,004
Railway Strip	165	373	170	236	944
TOTAL	34,859	42,998	30,147	42,181	150,185

The European or white population of the territory is widely scattered.
The principal native villages are :—

	Tribe.	Estimated Population.
Serowe	(Bamangwato)	25,000
Kanye	(Bangwaketse)	12,000
Molepolole	(Bakwena)	9,000
Maun	(Batawana)	5,000
Mochudi	(Bakgatla)	8,000
Ramoutsa	(Bamalete)	3,500

§ 5. Vital Statistics and Migration.

1. **Registration of Births, Deaths, and Marriages.**—The registration of births is voluntary and governed by Act No. 20 of 1880 of the Colony of the Cape of Good Hope, which is applicable to the Bechuanaland Protectorate.

The only details registered are those of non-natives.

The solemnization of marriages is governed by Proclamation No. 1 of 1917, as amended by Proclamations Nos. 14 of 1917 and 72 of 1922. Most natives secure their brides by the payment of " bogadi " cattle to her parents.

2. **Migration Regulations (Europeans).**—There are no Migration Regulations concerning the entrance of Europeans into the Bechuanaland Protectorate.

§ 6. Public Health.

1. **Public Health Laws.**—The provisions of the Public Health Acts of the Colony of the Cape of Good Hope passed previous to 10th June, 1891, are, *mutatis mutandis*, in force within the territory; and the provisions of Part I of the *Police Offences Act*, No. 27 of 1882 have been applied by proclamation to the areas of Gaberones, Francistown, Lobatsi, and Palapye Road. By Proclamation No. 12 of 1924, the Resident Commissioner is empowered —subject to the approval of the High Commissioner—to make regulations for the purpose of preventing the introduction into or dissemination within the territory of any infectious or contagious disease, and, subject to the like approval, to make local public health regulations.

No one may practise within the territory as a physician, surgeon, apothecary, chemist, or druggist without being licensed to do so, and to that end must first produce his diploma to the Resident Commissioner.

2. **Hospitals and Medical Service.**—There are no hospitals in the territory, apart from a small one at Gaberones. The more serious cases are removed to the Victoria Hospital at Mafeking, towards the erection of which the Bechuanaland Protectorate Administration made a substantial contribution, and towards the maintenance of which it makes an annual grant of £25.

The Principal Medical Officer resides at Mafeking. There are medical officers at Gaberones, Serowe, Francistown, and Maun. Apart from these, railway medical officers travel up and down the railway line.

§ 7. Education and Religion.

1. **Schools.**—In 1924–25 there were in the territory 12 schools for Europeans, each in receipt of a Government grant-in-aid. These were attended by approximately 200 children. There were 85 native schools attended by 5,682 children. The schools for European children received Government grants-in-aid, which amounted to £1,523.

With the exception of a grant from Revenue of £300 to the London Missionary Society and the payment of the salary of the Principal of the Bakgatla National School at Mochudi, which school was erected and equipped by the Bakgatla Tribe, the native schools were supported from the native fund, from which the sum of £4,520 was spent on education and the upkeep of the school buildings, £150 going to the native institution at Tiger Kloof for the training of teachers. In addition, the Bamangwato themselves entirely defray the cost of the upkeep of the Khama Memorial School, which is a very fine building with a large attendance of scholars.

Most of these schools are making good progress, but the custom of the Bechuana of sending a great number of their boys to distant cattle posts for the whole year, and of taking their families with them to their lands for long periods of the school-year, greatly retards material improvement. The number of schools has increased, with a slight increase of pupils, but many of these schools are not in being for the whole year. Making due allowance for the seasonal variation in attendance, there seem to be signs of the awakening of a new spirit among the Bechuana in regard to education.

At the census of 1921, 16,344 males and 20,175 females were returned as literate and 60,684 males and 52,982 females as illiterate.

2. **Churches.**—Religious work is carried on in the territory by representatives of various denominations. There are churches for Europeans at Francistown and Serowe, and clergymen of the Anglican and Wesleyan Churches occasionally hold services for Europeans along the railway line. As regards natives, each principal village has a spacious church building, paid for chiefly by the natives themselves; and places of worship are also to be found in the majority of the smaller villages.

§ 8. Labour and Wages.

1. **Labour in the Protectorate.**—The European population of the Protectorate being small, and there being no industries of any magnitude in the territory, the demand for native labour within its borders is consequently restricted, and confined chiefly to work in farming operations within the comparatively small areas open to white settlers in the Francistown and Ghanzi Districts and in the Tuli, Gaberones, and Lobatsi blocks of farms.

2. **Labour Recruiting.**—The Protectorate offers a large field of operations, however, for recruiters of native labour for work on the mines and elsewhere outside of the territory; but no person may act as a labour agent within the Protectorate unless he is the holder of a current, non-transferable, licence for that purpose, issued to him by the Resident Commissioner or by some officer duly authorized by the Resident Commissioner to issue such licences.

Any person applying for a labour agent's licence is required to deposit £100 or to find security to the like amount to the satisfaction of the Resident Commissioner or other authorized officer, and must also fix a *domicilium citandi et executandi* within the territory where all civil process in respect of any breach of contract or recovery of wages may be served. Every application for such licence must be accompanied by a statement in writing, signed by the proposed employer, giving his name and address, the nature of the proposed employment, the rate of wages at which the native labourers are to be engaged, and any further particulars as to the proposed terms of service which the officer issuing the licence may demand. No concession or contract by which any native chief or headman purports to bind himself or his people to provide labourers is valid.

The native tribes of the territory are well behaved as a whole, ready to act on the advice of the Resident Commissioner and of his officers, and the Administration is therefore in the happy position of being free from labour problems which affect other countries.

3. **Wages and Cost of Living.**—The conditions as to wages and the increase caused by the war in the cost of foodstuffs and other necessaries of life are, to all intents and purposes, similar to those at present existing in the Union of South Africa.

4. **Sale of Intoxicating Liquor.**—No intoxicating liquor may be introduced into the territory without the permission in writing of the Resident Commissioner, of an Assistant Commissioner, Magistrate, or Commissioned Officer of Police. The sale or gift of liquor to any native is strictly prohibited. By the word "native" is understood "any aboriginal native belonging to any native tribe, including half-castes and all persons of mixed race living as members of any native community, tribe, kraal, or location."

Apart from the licence issued to the Rhodesia Railways, Limited, for the sale of refreshments on passenger trains running through the Bechuanaland Protectorate, there are only seven licences for the sale of liquor in the territory. These are granted in respect of premises along the railway line at places where accommodation is necessarily provided for travellers.

§ 9. Administration of Justice.

1. **Courts of Law.**—The Resident Commissioner exercises all the powers of the Supreme Court of the (late) Cape Colony, but no original civil action, suit, or proceeding can be instituted in his Court, and, except in cases of murder, it is not competent to institute or bring any criminal proceedings before his Court in the first instance, or otherwise than by way of review or appeal from the decision of a Court of Assistant Commissioner, Resident Magistrate, Assistant Resident Magistrate, or Special Justice of the Peace.

Until 1912 Assistant Commissioners and Resident Magistrates had jurisdiction in all civil and criminal cases, except murder, subject to the right of appeal to the Resident Commissioner and to the Sovereign-in-Council; but their jurisdiction did not, and does not, extend to any matter in which natives of the same tribe were concerned, unless in the opinion of such Court the exercise of such jurisdiction was necessary in the interests of peace or for the prevention or punishment of acts of violence to person or property.

Until 1912, also, the trial of every person charged with murder had, under section 4 of the *Bechuanaland Protectorate Proclamation*, No. 2 of 1896, to be held before a Court consisting of the Resident Commissioner, as President, and any two Assistant Commissioners or Resident Magistrates of the territory. But since 1912 a Special Court, called the *Special Court of the Bechuanaland Protectorate*, was established for the trial of such cases (civil and criminal) as are hereinafter mentioned and (save as hereinafter otherwise stated) to exclude such cases from the jurisdiction of the Courts of Resident Commissioner, Assistant Commissioner, and Resident Magistrate. The Special Court is held at such time and at such place or places as are publicly notified by the Resident Commissioner, and consists of a Judge or Advocate of the Supreme Court of South Africa, appointed by the High Commissioner to be President of the Court, and any two Assistant Commissioners nominated by the Resident Commissioner.

Such Court has jurisdiction in respect of—

(*a*) civil actions in which either party is a European, and in which the claim or value of any property in dispute exceeds £1000, or in which the action is for the divorce of persons joined in matrimony or for a declaration of nullity of marriage;

(*b*) criminal cases in which the accused is a European and is charged on indictment with any of the following offences: treason, murder, culpable homicide, rape, perjury, arson, offences relating to the coinage, and if the property, the subject of the offence, exceeds £1000, theft, receiving stolen property knowing the same to have been stolen, robbery, forgery, uttering forged documents knowing the same to be forged, fraud, and attempts to commit any of the aforesaid offences;

(*c*) Such cases pending in the Court of Resident Commissioner or in the Court established under section 4 of Proclamation No. 2 of 1896 as such Court may, on its own mere motion, remove to the said Special Court;

(*d*) such civil actions pending in any Court of Assistant Commissioner or Resident Magistrate in which either party is a European as such Court may, either on application to it by either party to the action or on its own mere motion, remove to the said Special Court;

and neither the Court of the Resident Commissioner nor a Court of Assistant Commissioner or Resident Magistrate now has jurisdiction in any cases mentioned in (*a*) or (*b*) above, otherwise than for conducting a preliminary examination, unless both of the parties or the accused, as the case may be, apply to have the case tried before such Court and such Court grants such application where the case is within its jurisdiction.

A right of appeal to the Privy Council lies against any final judgment, decree, sentence, or order of the said Special Court.

When the Special Court is not sitting, any Court of Assistant Commissioner or Resident Magistrate may hear and determine—

(*a*) all motions and applications (including applications for arrests and interdicts of persons and things) in respect of any claim, debt, or matter in dispute which is within the jurisdiction of the said Special Court, whether an action in respect thereof is pending in the said Special Court or not;

(*b*) all actions for provisional sentence which are within the jurisdiction of the said Special Court;

(*c*) all trial cases commenced in the said Special Court in which either the plaintiff or the defendant is in default or in which consent to judgment is filed by the defendant; where such Court would but for the provisions above cited have had jurisdiction to hear and determine such case;

and in all such cases an appeal lies from the decision of a Court of Assistant Commissioner or Resident Magistrate to the said Special Court.

The rules of the Cape of Good Hope, Provincial Division, of the Supreme Court of South Africa in force on the 1st day of October, 1912, apply, *mutatis mutandis*, in the Special Court of the Bechuanaland Protectorate.

The rules, orders, and regulations respecting the manner and form of proceeding in civil and criminal cases before the Court of the Resident Commissioner are, *mutatis mutandis*, and as far as the circumstances of the territory admit, the same as those of the Supreme Court of the Colony of the Cape of Good Hope, and the procedure in the Courts of Assistant Commissioners and Resident Magistrates is, subject to a similar proviso, the same as that which was in force in the said Colony on the 10th day of June, 1891. Under High Commissioner's Notice No. 151 of 1925 (published in the *Official Gazette* of the 9th October, 1925) a Rule of the Court of the Resident Commissioner provided scales of fees and charges to be taken and made by attorneys of the Courts of the Bechuanaland Protectorate in civil cases where the cause of action exceeds £50, and in applications for compulsory sequestration and voluntary surrender of estates as insolvent.

Courts of Assistant Resident Magistrates, first established in 1898, have such jurisdiction in all matters and cases, civil and criminal, as was conferred prior to the 10th day of June, 1891, on the Courts of Resident Magistrates of the Colony of the Cape of Good Hope, but their jurisdiction does not extend to cases in which natives belonging to one and the same tribe are concerned, except where it is necessary in the interests of peace or for the prevention or punishment of acts of violence to person or property.

The native chiefs adjudicate on cases arising among natives of their respective tribes, and legislation has recently been introduced which provides for appeals against judgments of native chiefs in the Bechuanaland Protectorate. Such appeals lie in the first instance to a Court composed of the Assistant Commissioner or Magistrate of the district and of the chief whose judgment is appealed from. If the Assistant Commissioner or Magistrate and the chief agree, but the complainant is dissatisfied with their decision, a further appeal lies to the Resident Commissioner. In the event of the Assistant Commissioner or Magistrate and the chief disagreeing, then the Resident Commissioner decides the matter in dispute.

The jurisdiction of Special Justices of the Peace in the Bechuanaland Protectorate is similar to that which was conferred on Special Justices of the Peace of the Cape Colony prior to the 10th June, 1891; the punishment which may be inflicted by them on offenders is a fine of £2 or imprisonment with or without hard labour for one month, and all cases tried by them must be sent for review.

Apart from the Resident Commissioner's Court and the Special Court of the Bechuanaland Protectorate, there are in the territory one Court of Assistant Resident Commissioner; eleven Courts of Resident Magistrate [at Gaberones, Kanye, Maun (Ngamiland), Serowe, Lobatsi, Molepolole, Selika, Francistown, Kasane, Lehututu, and Ghanzi]; one Court of Assistant Resident Magistrate (at Gaberones).

There are also a number of Justices of the Peace throughout the territory.

CRIMINAL CASES ADJUDICATED UPON IN BECHUANALAND PROTECTORATE, 1919–20 TO 1924–25.

1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
499	434	410	736	590	479

These figures do not include cases tried by native chiefs in accordance with native law.

2. **Prisons.**—There is a prison at Francistown and another at Gaberones. At other centres there are lock-ups. The Prison Regulations published under Government Notice No. 1108 of 13th November, 1893, framed under and by virtue of the provisions of Act No. 23 of 1888 of the Cape Colony, are in force, in so far as applicable, throughout the Bechuanaland Protectorate.

§ 10. Defence and Police Organization.

1. **General.**—There is no Defence Force. For the maintenance of law and order, however, there is a force of police known as the *Bechuanaland Protectorate Police*, numbering 227. This force is under the direct control of the Resident Commissioner, and Part 2 of the *Cape Mounted Riflemen Act* (Cape of Good Hope), No. 9 of 1878, is, *mutatis mutandis*, in force and applicable to all members of the police. There are 8 European officers and 18 European non-commissioned officers and men; also 50 native non-commissioned officers and men mainly drawn from Basutoland. In addition, there are 180 Bechuana employed as dismounted constables. The police are stationed in small detachments at various posts in the territory.

2. **Arms and Ammunition.**—No arms or ammunition may be brought into the territory or delivered to anyone within its boundaries without the permission in writing of the Resident Commissioner or of an Assistant Commissioner or Magistrate duly authorized by the Resident Commissioner to grant such permission.

§ 11. Land and Water Supply.

1. **Land Tenure.**—The amount of transfer duty payable in the territory is two pounds per centum.

No policy has yet been disclosed as regards the Crown Lands defined by the Order-in-Council of the 10th January, 1910, and no occupation or ownership or claims of right to occupation or ownership by any person of European birth or descent in respect of any land within the limits of the territory and no concession or grant of any right, title, or privilege to deal with or authorize the occupation or ownership of any such land can be recognized as valid or legal unless or until approved in such mode as has been or may hereafter be appointed by the High Commissioner.

Outside of the Native Reserves no tribal claims to land in the Protectorate can be acknowledged by His Majesty's Government unless such claims are based upon an occupation commencing at a date prior to the Proclamation of the High Commissioner constituting such land a Protectorate or incorporating such land in the Protectorate, or unless such land has been subsequently occupied with the express consent of the High Commissioner.

No concession by any native chief whether or not accompanied or supported by any power of attorney or instrument or document of procuration and no power of attorney or instrument or document of procuration granted by any such chief coupled with an interest in favour of some other person whether such interest be apparent or not in the face of such power, instrument, or document, can be recognized by any Court of Law unless and until sanctioned and approved by His Majesty's Secretary of State.

The Native Reserves are held under tribal tenure and are inalienable. No person of European birth or descent may carry on business of any description therein without having first obtained the consent of the chief and his councillors.

2. **Water Supply.**—There are no irrigation works in the Protectorate. Apart from the rivers Marico, Limpopo, Zambesi, and Chobe, and apart from the Okavango marshes and their outlets, there are practically no surface waters in the territory, except in the rainy season. In the dry season, when the rain-pools disappear, water can, however, usually be had at no great depth by sinking in the sandy beds of the larger rivers.

Water-boring and well-sinking operations, in comparatively close proximity to the eastern border of the territory, have given good results in some localities, but have proved utter failures in others, solid red granite being often encountered.

Several attempts have been made by the Administration to open up the waters to the west, through the Kalahari. These have yielded only meagre results. The water struck was sometimes very brackish. It is possible, however, and the opinion has often been expressed, that by deep boring the waterless and useless tract of land now known as the Kalahari Desert may yet be transformed into one of the finest ranching countries in the world.

3. **Schwarz Scheme.**—In 1925 a reconnaissance into the Kalahari was undertaken by the Union to test the proof of a scheme suggested by Professor E. H. L. Schwarz, of Rhodes University College, Grahamstown, Cape Province, who has advanced the interesting theory that by a diversion of the flood-waters of certain of the rivers now flowing into the Zambesi, and which he considers at a recent period discharged into the lakes and pans of

the Kalahari, these sheets of water would be greatly enlarged and restored again to their former size; that a large part of the surrounding country, now arid, would immediately become available for settlement, and that the presence of these large bodies of water would encourage the precipitation of moisture over certain parts of the Union. The personnel of the reconnoitring party consisted of Dr. A. L. du Toit, geologist (also functioning as officer in charge); C. Sholto Douglas, engineer; S. H. Noaks and L. L. R. Buckland, assistant engineers; C. L. Stegman, meteorologist; C. Volk, motor mechanic; and S. Hattingh, foreman of surveys. For a short time Professor Schwarz accompanied the party, which in its survey work was ably assisted by two aeroplanes of the Union Defence Force under the pilotage of Captain Meredith and Lieutenant (now Captain) Tasker. The report issued on the project was not favourable, although it was conceded that certain proposals might prove successful in limited areas, but in no case was it considered that any direct benefit from the scheme would accrue to the Union.

§ 12. Agriculture and Pastoral Production.

1. **Agriculture.**—Although maize, kaffir corn, beans, pumpkins, and melons are reaped in large quantities by the natives when the season is favourable, yet the rainfall is insufficient, or too uneven and uncertain in its distribution, to render agriculture anything but a hazardous pursuit.

2. **Live Stock.**—The number of horned cattle, according to the census in 1911, was 323,911, notwithstanding the fact that, fifteen years before, rinderpest had swept through the territory, carrying off approximately 95 per cent. of its cattle. There were also, in 1911, 358,336 sheep and goats. According to the census taken in 1921, the following live stock was owned by natives and Europeans in the territory:—

BECHUANALAND—LIVE STOCK OWNED BY EUROPEANS AND NATIVES, CENSUS OF 1921.

Heading.	Cattle.	Sheep.	Goats.	Horses and Mules.	Donkeys.
Owned by Natives.....	426,344	120,186	237,740	2,264	6,206
Owned by Europeans.....	68,718	12,268	10,231	493	2,278
TOTAL.....	495,062	132,454	247,971	2,757	8,484

3. **Export of Cattle.**—For several years prior to 1917–18 the only horned cattle which the Union Government would permit to enter the Union from the Protectorate were slaughter cattle consigned in sealed trucks to approved abattoirs, where the animals had to be slaughtered immediately on arrival. In that year, however, the Union Government, recognizing that the Southern Protectorate was a clean cattle district, decided to allow the introduction therefrom of breeding animals as well as slaughter cattle, and subsequently extended this concession to animals from Ngamiland. On 1st June, 1917, a quarantine camp was established at Ramathlabama, on the southern boundary of the territory, the conditions of export being that the animals should serve a fourteen days' quarantine in a fenced camp, that they should be inspected by a veterinary surgeon on entry and before release, and that during the period of quarantine they should be daily under the supervision of a competent stock inspector.

Owing, however, to the cattle surplus in the Union, the export of Protectorate cattle to the open markets of the Union was stopped in February, 1923, when the Ramathlabama quarantine camp was closed. In addition and for a similar reason, restrictions as to weight and condition were imposed on Protectorate slaughter cattle on 1st March, 1924. All exported animals, except those intended for overseas, have now to scale a minimum of 800 lb. live weight, and the carcass must dress 50 per cent. of the estimated live weight.

A duty of 2s. 6d. was payable upon every head of cattle exported from the territory, and no cattle may be exported therefrom except through a port of exit appointed by the High Commissioner. By Notice No. 79 of 1925, however, this duty was suspended for one year as from the 1st April, 1925. There are at present three such ports of exit, namely, Ramathlabama, on the southern boundary of the territory (sixteen miles north of Mafeking), and Kazungula and Muhembo, in the north of the territory.

4. **Licensed Sale of Stock.**—Persons, other than those licensed as general traders or butchers within the territory, who desire to purchase, or acquire by exchange or barter, live stock within the Protectorate, for export therefrom, are required to obtain a licence to do so. Applicants for such licences deposit £100, or find security to the like amount to the satisfaction of the Resident Commissioner or other authorized officer, and are required also to fix a *domicilium citandi et executandi* within the territory. Such deposit or security may be taken in execution in whole or in part for the purpose of satisfying judgments of any competent Court within the Bechuanaland Protectorate whereby the person who made such deposit or found such security is required to pay any sum, whether by way of damages, costs, or otherwise, to any person domiciled within the Protectorate. An applicant is further required to have been duly registered as the proprietor of a brand within the Protectorate. Purchase for export licences cost £25, but the High Commissioner may order that they shall be issued, for any calendar year or portion thereof, without payment of any fee therefor. They are not transferable, and are issued subject to such conditions as to the local limits within which cattle may be purchased or acquired as the Resident Commissioner may impose, and the issue or renewal thereof may be refused without any reason being given.

The term " live stock " includes any horse, mare, gelding, colt, filly, mule, or ass ; any bull, cow, ox, heifer, or calf ; and any sheep or goat.

Horned cattle to the number of 17,993 were exported from the territory to the Union of South Africa in the year 1924–25, as against 26,404 in 1923–24, and 7,169 to other destinations through the port of exit at Kazungula ; 14,157 sheep and goats were exported to the Union in 1924–25, as against 9,162 head in 1923–24, and 9,185 were exported to Rhodesia, as against 11,488 in 1923–24.

5. **Restrictions on Import.**—As a precautionary measure against the introduction of contagious animal diseases—especially East Coast fever, the spread of which to the territory the Administration has so far succeeded in preventing—no cattle, sheep, pigs, goats, horses, mules, and donkeys, and no hay, horns and skins, and no vehicle (except railway vehicles and motor-cars) or wagon-gear, cart-gear, or harness, may be introduced into the Bechuanaland Protectorate without the written permission of the Resident Commissioner or other duly authorized officer ; and no horned cattle may be removed from one district to another within the territory without the permission in writing of an Assistant Commissioner or magistrate or other authorized official. The Resident Commissioner has power to order, in case of emergency, that all movement of cattle from any place to any other place within the territory be forthwith stopped.

6. **Equines.**—Equines are very liable to contract the disease of horse-sickness in the territory, and it is generally fatal. There are consequently and comparatively speaking very few horses and mules in the Protectorate.

7. **Forest Resources.**—The territory is well wooded, and a large quantity of dead wood for fuel is exported by rail from the Southern Protectorate. A considerable quantity of timber suitable for mining props is also sent out of the country.

8. **Co-operative Societies.**—The formation, registration, and management of Co-operative Agricultural Societies within the territory are governed by Proclamation No. 2 of 1910.

§ 13. Mines.

Gold and Silver.—The only portion of the territory in which gold mining has, so far, been carried on, is the Tati district. This has been done, on a small scale, for years. The output for the year 1924–25 was 1,372 oz. of gold and 250 oz. of silver, of a total value of £5,799.

§ 14. Trade.

The imports consist chiefly of blankets, articles of clothing, ploughs, iron and tin ware, and groceries. The exports consist mainly of horned cattle, small stock, hides, skins, dairy products, and wood, and, in seasons of abundant harvest, a certain quantity of maize and kaffir corn is exported.

The Bechuanaland Protectorate is a native territory the inhabitants of which are mainly engaged in cattle rearing. To the improvement of native stock, the distribution among the various tribes of pure-bred bulls purchased out of a fund maintained by the natives themselves, and the restriction of cattle exportations to the Union to a certain weight of animal, contribute in different ways. For veterinary reasons, the export of cattle to the Union is further restricted to consignments intended for approved abattoirs, and (without restriction as to weight) for export overseas, while to South West Africa and Southern Rhodesia it is absolutely prohibited. There is unrestricted export through Northern Rhodesia to the Belgian Congo, except that the Government of the former territory

require that, in order to conserve the grazing on their side, cattle so exported shall not exceed a fixed number in one year, but numbers of Protectorate cattle also find their way to the Congo market through Angola. As a result of all these limitations, some of which are of recent imposition, the cattle trade is not yet what it might be, and, indeed, during the financial year 1924–25 suffered a diminution of some 25 per cent. in numbers.

The export of sheep and goats, on the other hand, showed an increase all round of 13 per cent., for which a considerably increased export to the Union was mainly responsible, exportations to Rhodesia having fallen off over 20 per cent. There is a small export of pigs, mostly to the Union, which showed improvement.

The financial year opened with a bad drought and a heavy locust infestation, which did serious damage to such grazing as survived. Had not the succeeding rainy season been a record one, the trade in live stock must have been extremely poor, having regard to the cattle restrictions in weight. The hides and skins of the stock which die of starvation are, however, marketable, and these were exported to the value of £22,117, as compared with £16,400 in the previous year.

The trade in dairy products by the European settlers is promising. The exports as compared with the previous year are as follows :—

	1923–24.	1924–25.
Cheese	£3,466	£2,844
Butter	202	235
Butter-fat and cream	14,303	20,359

Skins and karosses of wild animals were exported to the value of £12,819, as compared with £5,582 in the previous year. There is a considerable export of firewood, i.e. dead trees, bringing into the territory some £4,000 a year. The only minerals produced are gold and silver in the Tati District. They both show a large decrease as noted elsewhere.

Crops, as the result of the plentiful rains, though to some extent damaged by rot, yielded a handsome surplus over the food requirements of the native population, for which they are normally grown, and with the aid of very substantial reductions which have been made in the railway rates, an export trade in grain may be established, if the market conditions permit. As an experiment, cotton has been sown fairly extensively by European settlers, with encouraging results.

The reduced railway export rates for grain are also applicable to dried locusts, and as a market exists for this commodity in Holland there are possibilities of trade developments in this direction, as the natives will readily collect them, but an expensive supply of bags would seem to be necessary unless the railways can accept the traffic in bulk, i.e. in truckloads. At present the locusts collected and traded are found to be valuable food for cattle and poultry.

The business done at the traders' stores in the territory has shown much improvement during the year. The goods imported by these stores amounted to £220,000, as against £166,000 in 1923–24.

For Customs purposes the territory is dealt with, by agreement, as a part of the Union of South Africa, the Treasury of the Union paying out quarterly to the Bechuanaland Protectorate a sum bearing to the total Customs revenue of the Union in each year the same proportion as the average amount of the Customs revenue of the territory for the three completed financial years last preceding the taking effect of the South Africa Act, 1909, bore to the average amount of the whole Customs revenue for all the Colonies and Territories included in the Union received during the same period. That proportion is .27622 per cent. of the total Customs revenue of the Union. The territory collects its own Customs duties on spirits and beer manufactured in the Union of South Africa, or in any British Protectorate or Possession in South Africa, the Government of which has entered into a Customs agreement with the Union.

§ 15. Railways and Roads.

1. **Railway Construction.**—On 3rd August, 1894, an agreement was entered into between the High Commissioner for South Africa as Governor of British Bechuanaland, the British South Africa Company, and the Bechuanaland Railway Company (now Rhodesia Railways, Ltd.), for the construction and working of a railway by the railway company from Vryburg in British Bechuanaland, to Palapye in the Bechuanaland Protectorate. This agreement was later supplemented by an amending agreement between the same parties. These two documents form the schedule to Proclamation No. 227 of British Bechuanaland.

The railway line having been constructed, under the provisions of that Proclamation, from Vryburg to Ramathlabama—upon the southern boundary of the Bechuanaland Protectorate—the Bechuanaland Railway Company was authorized and empowered by a Proclamation dated the 23rd November, 1896, to construct, equip, maintain, and work, subject to the provisions thereof and to the terms of the two agreements alluded to, a line of railway from the southern boundary of the territory to a point at or near Palapye, and,

for that purpose, to enter upon and take possession of land of a uniform width throughout of one hundred yards, and such land in addition as might be required for all junctions, sidings, and stations, and for all other works and approaches.

The extension of this line by the Bechuanaland Railway Company to the northern boundary of the Bechuanaland Protectorate, was authorized by a subsequent Proclamation ; and in view of the Matabele and Mashona rebellion in 1896, and the fact that in that year all ox traffic from the Cape to the north was dislocated by rinderpest, the construction was pushed on with great rapidity by the contractors, the line reaching Bulawayo on the 19th October, 1897.

2. **Railway through Tati District.**—In 1910, as the result of negotiations extending over some years, the Tati Concessions, Limited (now the Tati Company, Limited) and the Bechuanaland Railway Company (now Rhodesia Railways, Limited) entered into an agreement (see Schedule 3 to the Bechuanaland Protectorate Proclamation No. 2 of 1911) whereby the former conveyed to the latter, in addition to certain land at Francistown and subject to certain conditions, a strip of land—along the line of railway they constructed—of a uniform width of one hundred yards throughout the Tati District (now merged into the Francistown District).

3. **Length of Railway.**—The length of the railway line running through the Bechuanaland Protectorate is 403 miles, including about 70 miles through the Francistown District. The line enters the Protectorate at Ramathlabama Spruit, sixteen miles north of Mafeking and 886 miles north of Cape Town, and leaves it at mileage 1,289 (about half-way between Ramaquabane Siding and Plumtree).

The Rhodesia Railways, Limited, have constructed several dams in connection with the working of the line, viz. :—

	Capacity in Gallons.
Lobatsi	15,000,000
Metsimaswaana (Notwane Siding)	45,000,000
Mileage 1197	5,000,000
Palapye	15,000,000
Tsessebe (Inchwe River)	12,000,000
Pilane	9,000,000

There is no other line of railway in the Bechuanaland Protectorate.

4. **Roads.**—The roads from railway stations and sidings to the principal villages serve for motor transport, but about fifty miles west of the railway line ox-transport becomes an absolute necessity.

§ 16. Posts, Telegraphs, and Telephones.

1. **Postal System.**—The administration and control of the postal department in the Protectorate is, subject to the authority of the Resident Commissioner, vested in the Postmaster-General of the Union of South Africa.

From June, 1891, to August, 1916, the Post Office Acts of the Colony of the Cape of Good Hope passed prior to June, 1891, were, *mutatis mutandis*, in force within the Bechuanaland Protectorate, as also certain other Post Office Acts promulgated subsequent to June, 1891, and made applicable to the territory by Proclamation. All these Acts were repealed by Act No. 10 of 1911 (*The Post Office Administration and Shipping Combinations Discouragement Act*, 1911) of the Union of South Africa, but still remained in force in the Protectorate until 18th August, 1916, when, by Proclamation No. 28 of 1916, the said Act No. 10 of 1911 was, with certain exceptions, *mutatis mutandis*, applied to the Protectorate.

2. **Telegraphs and Telephones.**—The telegraph and telephone lines erected in the Protectorate, connecting the Union of South Africa with Rhodesia, are owned and worked by the Rhodesian Administration. They run parallel to the railway line. The only telegraph and telephone branch is from Palapye Road to Serowe, a distance of approximately 35 miles. In addition there is a line of telephone from Lobatsi Railway Station to " Woodlands " (the British South Africa Company's experiment farm), a distance of about seven miles, and one from Palapye Road to Macloutsie.

The rate for telegrams exchanged between the Bechuanaland Protectorate and other parts of South Africa is 2d. per word ; to Northern Rhodesia, 3d. per word.

The *Electric Telegraph Acts* of the Cape of Good Hope, Nos. 20 of 1861, 5 of 1682, 4 of 1877, and 41 of 1882, are still in force in the Bechuanaland Protectorate *mutatis mutandis*.

No person may establish or use any apparatus or installation for the transmission of messages or other communications by means of electrical energy without the aid of wires, without having previously obtained a licence for these purposes.

Power to establish a censorship of postal and telegraphic matter is provided by Proclamation No. 60 of 1914.

3. **Post Offices and Postal Revenue.**—There are twenty-one Post Offices and Postal Agencies in the Protectorate, namely:—

Francistown, Lobatsi, Serowe	Money Order, Savings Bank, Post and Telegraph Offices.
Gaberones Railway Station, Mahalapye Railway Station, Mochudi Railway Station, Palapye Road Railway Station	Postal Order and Telegraph Agencies.
Gaberones Village, Mochudi Village, Kanye, Molepolole, Palla Road, Ramoutsa, Tsessebe, Pitsani, Kasane, Maun, Ghanzi, Makgobi's Stad, Shashi, Ramaquabane	Postal Order Agencies.

During the year 1924–25 the issues of postal and money orders totalled 10,341, with a value of £4,148, as against 10,639, valued at £6,630, during 1923–24.

In 1924–25, 2,548 orders were paid out to the value of £1,535, as against 2,730, valued at £2,507, in 1923–24.

The rate of postage on letters posted within the territory for delivery therein or for delivery in the Union of South Africa, Southern and Northern Rhodesia, and the Province of Moçambique, is 2d. for each ounce or fraction thereof.

§ 17. Finance.

1. **Revenue and Expenditure.**—There is no Public Debt in the Bechuanaland Protectorate. Until and including the financial year 1914–15 (1st April to 31st March) the excess of expenditure over revenue was met by an Imperial grant-in-aid; and since 1915–16 the revenue of the territory has generally exceeded the expenditure. Assets exceeded liabilities on the 31st March, 1925, by £39,025.

The revenue receipts under the various heads are given below for six financial years.

REVENUE.—BECHUANALAND PROTECTORATE, 1919–20 TO 1924–25.

Description.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	£	£	£	£	£	£
Customs	20,986	27,819	17,941	20,116	22,810	24,849
Hut Tax	38,620	38,446	36,215	29,331	31,999	35,374
Licences	6,325	6,554	4,674	5,190	5,051	5,253
Revenue Stamps	686	804	1,218	826	546	519
Posts	7,655	9,620	10,155	10,148	13,463	12,259
Sales of Government Property	565	684	600	*	*	*
Rentals and Transfer Duty	618	1,753	943	1,041	450	840
Judicial Fines	1,522	555	666	478	275	326
Miscellaneous	319	931	760	1,337	868	904
Export Duty on Cattle (and Fees)	3,420	8,924	6,750	6,893	7,068	3,585
Cattle Tax	848	3,332	3,044	1,827	—	—
B.P. Native Fund Contributions	—	2,343	2,011	1,648	1,612	1,866
Income Tax	—	—	—	12,087	14,654	12,636
Poll Tax	—	—	—	1,072	1,198	1,170
TOTAL £	81,564	101,765	84,977	91,994	99,994	99,581

* Included in "Miscellaneous."

The subjoined table gives the expenditure under the various heads for six financial years.

EXPENDITURE.—BECHUANALAND PROTECTORATE, 1919–20 TO 1924–25.

Description.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	£	£	£	£	£	£
Pensions	1,601	2,489	2,937	4,015	3,787	4,203
Resident Commissioner	6,282	6,198	6,171	7,456	8,316	8,896
Administration of Justice	2,626	4,197	3,649	4,453	4,152	4,246
District Administration	6,221	8,519	7,631	9,399	9,951	9,726
Posts	3,989	4,259	4,713	5,018	4,586	4,621
Customs	50	50	50	—	—	—
Police	40,283	55,497	38,156	27,552	24,221	24,923
Miscellaneous	5,009	3,293	2,859	3,015	2,512	2,738
Public Works Recurrent	3,096	2,468	1,777	2,776	4,724	4,851
Public Works Extraordinary	1,056	4,097	1,846	257	—	952
Medical	2,260	2,962	5,051	5,425	6,309	6,297
Education	2,057	2,317	1,102	1,488	1,825	2,619
Veterinary	11,933	10,739	8,474	7,691	7,715	9,261
Native Tax Commission, etc.	5,148	5,006	4,597*	3,891	3,476	4,040
Census	—	—	642	—	—	—
TOTAL £	91,611	112,091	89,655	82,436	81,574	87,373

* Allowances to Chiefs, etc.

2. **Hut Tax.**—The hut tax is £1 per annum, and is payable in respect of every hut occupied as a dwelling-place by a native or natives; and, if a hut is occupied by two or more male natives of full age, the sum of £1 is payable by each of them. The collection of this tax in the Native Reserves is made by the chiefs, who have been appointed collectors in their respective reserves, and receive a remuneration not exceeding 10 per cent. of the value of the tax collected by them. Outside of the Native Reserves the tax is collected by officers appointed for that purpose by the Resident Commissioner. An additional tax of 3s. per hut was levied as from 1st April, 1920, to be credited to a native fund created for the purpose of carrying out general improvements in the Native Reserves. From the 1st April, 1923, this tax was increased to 5s. per hut, except in the Bamangwato and Batawana Reserves, where it is only 3s. per hut.

3. **Stamp and Licence Duties and Fees.**—By Proclamation No. 14 of 1897, dated 30th September, 1897, as amended by Proclamation No. 23 of 1914, the undermentioned Acts of the Cape Colony, with regard to stamp and licence duties, were specially declared in force in the Protectorate, with certain modifications, in so far as they were at that date in force within the said Colony, and in so far as not inconsistent with or repugnant to any laws in force in the territory, namely :—

Act No. 3 of 1864.	Act No. 20 of 1884.
Act No. 13 of 1870.	Act No. 13 of 1886.
Act No. 15 of 1877.	Act No. 38 of 1887.

The following tariffs of fees have been applied to the Protectorate by Proclamation :—

In the Office of the Master of the Resident Commissioner's Court, see Schedule to Proclamation No. 3 of 1895.

In the Court of the Resident Commissioner and in Courts of Assistant Commissioner and Resident Magistrate, see High Commissioner's Notice No. 15 of 1896.

The following fees are also payable :—	£	s.	d.
For registration of a brand	0	10	0
For registration of a co-operative society	1	0	0
For registration of a marriage	0	2	6
For copy of a Marriage Certificate	0	2	6
For registration of a patent—			
On filing application for registration of patent	0	10	0
On registration of patent	1	0	0
Renewal fees—			
Before the expiration of third year of patent	2	0	0
Before the expiration of seventh year of patent	3	0	0
Before the expiration of tenth year of patent	5	0	0
(NOTE.—Any or all of the payments for renewals may be made in one sum.)			
On registration of any assignment, amendment, extension or licence	0	10	0

	£	s.	d.
For registration of a trade mark—			
On filing application for registration of trade mark	0	10	0
On registration of trade mark	1	0	0
Renewal fees—			
As and when and as often as renewal of registration is necessary in the Union of South Africa	1	0	0
On registration of any assignment, amendment, addition, or alteration	0	10	0
For a passport	1	0	0
For renewal of a passport, for each year renewed	0	1	0
For endorsement of a passport (except for British Empire journeys)	0	2	0

The following is the scale of licences in operation in the Protectorate. These licences are issued for calendar years, unless otherwise stated.

BECHUANALAND PROTECTORATE LICENCES.

Description of Licence (Annual).	Whole Year. £ s. d.	Half-Year. £ s. d.	Remarks.
Agent of a Foreign Firm	10 0 0	5 0 0	—
Apothecary, Chemist, and Druggist	5 0 0	2 10 0	—
Assurance Company, Society, or Association (Fire, Accident, or Life)	—	—	£5 first year, 3d. per £1 of premium received in the territory for second and subsequent years; minimum, £5; maximum, £50.
Auctioneer	10 0 0	5 0 0	—
Baker	5 0 0	2 10 0	—
Bank	—	—	For every £100 of its paid-up capital, ½d.
Broker	5 0 0	2 10 0	—
Butcher	5 0 0	2 10 0	—
Cigarettes (manufactured or for sale)	1 0 0	—	1st April in one year to 31st March in the next.
Commercial Traveller	5 0 0	—	—
Dealer in Aerated Waters, Cigars, and Tobacco	1 10 0	0 15 0	—
Game (to carry and use a gun)	1 0 0	—	—
Game (to sell or export for sale)	2 0 0	1 0 0	—
Gunpowder	5 0 0	2 10 0	—
Importer	12 0 0	6 0 0	—
Labour Agent	25 0 0	12 10 0	See § 8 above.
Joint Stock Company	—	—	1s. on every £100 of the subscribed capital.
Ostrich Feather Buyer	5 0 0	2 10 0	—
Pawnbroker	10 0 0	5 0 0	—
Railway Administration or Company (Refreshment Cars)	60 0 0	—	—
Trader (from fixed stand)	Minimum, 15 0 0 Maximum, 50 0 0	Minimum, 7 10 0 Maximum, 25 0 0	On aggregate amount of sales during preceding year. As to trading in Native Reserves, see first paragraph of § 11.
Stock Buyer—			
Including purchase for export	25 0 0	12 10 0	See § 12.
Excluding purchase for export	20 0 0	10 0 0	
Wine and Spirits :—			
Wholesale	30 0 0	15 0 0	—
Retail	30 0 0	15 0 0	—
Midnight Privilege	5 0 0	2 10 0	—
Temporary	—	—	10s. per diem.

Other Licences.	£	s.	d.
Game (to hunt "large game"):—			
Full season (1st March to 31st August), or any period exceeding three calendar months	20	0	0
For three calendar months or for any period exceeding two calendar months	12	0	0
For two calendar months or any period exceeding one calendar month....	8	0	0
For one calendar month or any period exceeding 14 days.....	4	0	0
For fourteen days or any shorter period.....	2	0	0

These licences are only issued to persons who wish to shoot for sport or to obtain specimens of the various species; and are not granted to those who are likely to abuse them or to shoot for the profit to be made out of the meat, skins, or horns. The number of head allowed to be shot under any licence is strictly limited, and is, under ordinary conditions, confined to one or two specimens of each variety. No licences are issued to shoot or capture hen ostriches, and the removal or being in possession of the eggs of these birds is not permitted. Persons applying for licences to shoot large game must satisfy the Resident Commissioner that they are fit and proper persons to hold them.

	£	s.	d.
Hawker—For three months or any lesser period for each vehicle.....	5	0	0
Marriage, Special.....	5	0	0
Wireless Telegraphy.....	100	0	0
Certificate of Admission to Practice—			
As an Advocate.....	20	0	0
As an Attorney.....	20	0	0
As a Notary Public.....	12	10	0
As a Conveyancer.....	12	10	0
As a Medical Practitioner.....	5	0	0
As an Apothecary, Chemist, and Druggist.....	2	10	0
As a Dentist.....	2	10	0
Motor Vehicles—			
For every motor-cycle without side-car.....	0	10	0
For every side-car or similar attachment.....	0	5	0
For every motor-car not exceeding 1,500 lb. in weight.....	1	10	0
For every motor-car exceeding 1,500 lb. in weight and not exceeding 2,500 lb.....	2	0	0
For every motor-car exceeding 2,500 lb. in weight and not exceeding 4,000 lb.....	3	0	0
For every motor-car exceeding 4,000 lb. in weight and not exceeding 6,000 lb.....	5	0	0
For every motor-car exceeding 6,000 lb. in weight.....	10	0	0

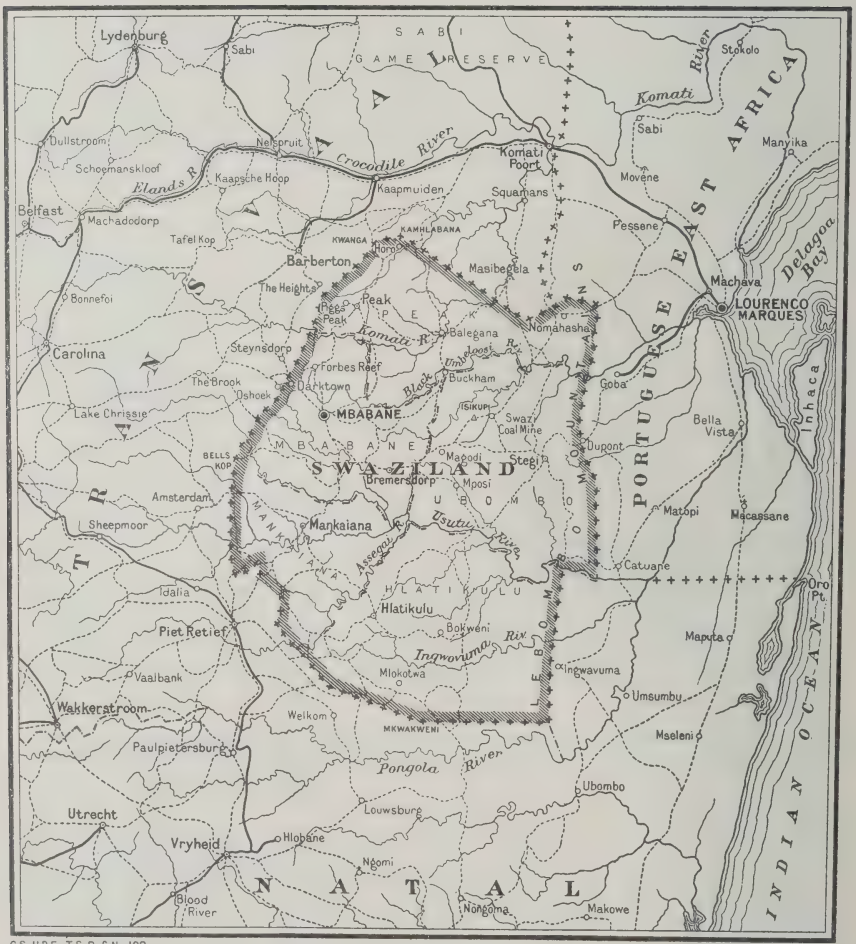
The above are reduced by one-quarter if paid between 1st April and 30th June, by one-half if paid between 1st July and 30th September, and by three-quarters if paid between 1st October and 31st December.

	£	s.	d.
Transfer of motor-car licence.....	0	5	0
Transfer of motor-cycle licence.....	0	2	6
Duplicate of registration certificate or of motor-vehicle licence.....	0	2	6
Drivers' licence—			
Motor-car.....	0	10	0
Motor-cycle.....	0	5	0
Temporary learner's licence (available for 30 days)—			
Motor-car.....	0	2	0
Motor-cycle.....	0	1	0

NOTE.—The owner of any motor vehicle who holds an unexpired licence or licences entitling him to drive such vehicle within any Province of the Union or any part of Southern or Northern Rhodesia or Swaziland may drive such vehicle (otherwise than for hire) in the Bechuanaland Protectorate for a continuous period not exceeding two months, without registering the same or obtaining a motor vehicle or driver's licence in the Bechuanaland Protectorate, but he must submit such licence or licences to the first Resident Magistrate of the Bechuanaland Protectorate on his route for endorsement.

4. **Banking.**—There are no commercial banks in the Protectorate.

SWAZILAND



G.S., U.D.F., T.S. Ref. No. 169.

G.P.W., PRETORIA 1949

1/2·7 M

Railway ——

10 0 10 20 30 40 50 60 70

Scale of Miles

------ Road

CHAPTER III.

SWAZILAND.

§ 1. History.*

The Swazis are akin to the Zulu and other tribes of the south-eastern littoral. Up to about 100 years ago they occupied the country just north of the Pongolo River, but a hostile chief in their vicinity forced them farther north, and, under their Chief Sobhuza, they then occupied the territory now known as Swaziland. This Chief, who died in 1839, was succeeded by Mswazi II. The further order of succession has been: Ludonga, Mbandini, and Bhunu, whose son, Sobhuza II., was installed as Paramount Chief in 1921, after a long minority, during which his grandmother, Labotsibeni, acted as Regent.

The many concessions granted by Mbandini necessitated some form of European control, notwithstanding that the independence of the Swazis had been guaranteed in the Conventions of 1881 and 1884, entered into between the Government of Her late Majesty, Queen Victoria, and the Government of the late South African Republic. In 1890, soon after the death of Mbandini, a Provisional Government was established representative of the Swazis, the British, and South African Republican Governments. In 1894, under Convention between the two European Governments, the South African Republic was given powers of protection and administration, without incorporation, and Swaziland continued to be governed under this form of control until the outbreak of the Boer War in 1899.

In 1902, after the conclusion of hostilities in the Transvaal, a Special Commissioner took charge, and, under an Order-in-Council in 1903, the Governor of the Transvaal administered the territory, through the Special Commissioner, until the year 1907, when, under an Order-in-Council (1906), the High Commissioner assumed control and established the present form of administration. Previously to this, steps had been taken for the settlement of the concessions question by the definition of the boundaries of the land concessions and their partition between the concessionaires and the natives. The boundaries of the mineral concessions were also defined, and all monopoly concessions were expropriated.

Title to property is therefore now clear.

In 1912, a Special Court was established with an Advocate of the Provincial Division of the Transvaal as President. The other members of the Court consist of the Resident Commissioner, the Deputy Resident Commissioner, and the Assistant Commissioners of the various districts. The Court holds sessions twice a year. All cases are dealt with by three members sitting without a jury The Court has jurisdiction in civil and criminal cases.

An elected Advisory Council, representative of the Europeans, was established in 1921, to advise the Administration on purely European affairs.

§ 2. Boundaries, Area, and Physical Characteristics.

1. **Boundaries and Area.**—Swaziland is bounded on the north, west, and south by the Transvaal Province, and on the east by Portuguese territory and Zululand. The area of Swaziland is 6,678 square miles.

2. **Physical Characteristics, Climate, Etc.**—The Territory is divided geographically into three longitudinal regions of roughly equal breadth, running from north to south, and known locally as the *high, middle,* and *low* or *bush veld.* The mountainous region on the west rises to an altitude of over 4,000 feet. The *middle veld* is about 2,000 feet lower, while the *low veld,* bounded on the east by the Lebombo Mountains, has an average height of not more than 1,000 feet.

The mountainous region, or *high veld,* is free from malaria, which is present in the *low veld,* and in a slight degree in the *middle veld* during some of the summer months. The first two regions are remarkably well watered. Innumerable small streams unite with the large rivers which traverse the country from west to east. Except for these the *low veld* is not very well watered. The climate is ideal except for a few months in summer when the heat is somewhat excessive in parts. The *high veld* portion, however, seldom experiences any excessive heat, a spell of hot weather being almost invariably followed by cooling mists.

* A full history will be found in previous issues of this *Year Book* (Nos. 3 to 6).

3. **Meteorology.**—Both the rainfall and the temperature vary considerably with the altitude of the stations. The average rainfall to the end of 1924 at three stations was :—

Mbabane (3,800 feet)..... 52·11 inches over 21 years.
Bremersdorp (1,500 feet)..... 34·64 „ „ 22 „
Natalia Ranch (800 feet)..... 25·36 „ „ 10 „

The following return shows the temperature recorded at Mbabane (*high veld*) and Natalia Ranch (*low veld*). The figures given in regard to Mbabane may be taken as typical of the hilly parts of the country, while those at Natalia Ranch are typical of the *low veld* generally. The *middle veld* varies as to rainfall and temperature between the two stations referred to.

RECORDED TEMPERATURE, MBABANE AND NATALIA RANCH.

Year.	Mbabane.			Natalia Ranch.		
	Mean Max.	Mean Min.	Mean Temp.	Mean Max.	Mean Min.	Mean Temp.
	°	°	°	°	°	°
1920.....	73·6	51·8	62·7	83·3	58·9	71·1
1921.....	72·4	51·6	62·0	83·3	59·8	71·5
1922.....	73·6	51·8	62·7	83·9	59·8	71·8
1923.....	74·6	52·0	63·3	85·4	59·0	72·2
1924.....	71·5	50·8	61·1	82·1	59·2	70·6

§ 3. Administration.

1. **Central Administration.**—By an Order-in-Council, dated the 1st December, 1906, Swaziland was placed directly under the control of the High Commissioner for South Africa, and a Proclamation was issued in March, 1907, providing for the appointment of a Resident Commissioner, a Government Secretary, Assistant Commissioners, and the establishment of a Police Force. In 1921 the establishment was approved of an Advisory Council to advise the Administration in purely European matters. A Council of nine members was elected, five for the southern portion of Swaziland, and four for the northern portion. A second Council was re-elected in 1923.

The headquarters of the Administration are at Mbabane, a small village, picturesquely situated on the hills, at an altitude of 4,000 feet, and overlooking the *middle veld*. It is reached by good roads from Ermelo, Breyten, and Carolina in the Transvaal, the latter town being distant about ninety miles. The journey by mail-car from Carolina takes about six hours. Mbabane can also be reached from the Portuguese railhead at Goba, by road through Bremersdorp, the former capital. The journey by motor-car, over a fair road, usually takes between eight and nine hours.

2. **Principal Officers of Administration.**—

Headquarters, Mbabane.

Resident Commissioner: de S. M. G. Honey, C.M.G.
Deputy Resident Commissioner and Government Secretary: B. Nicholson, C.B.E., D.S.O., M.C.
Financial Secretary: L. G. Luscombe.
Chief Clerk: L. J. Puttick.
Master, Registrar, Sheriff: W. W. Usher.

Hlatikulu District.

Assistant Commissioner, Hlatikulu: A. G. Marwick, O.B.E.
Deputy Assistant Commissioner: H. B. A. McCarter.

Mbabane District.

Assistant Commissioner, Mbabane: B. H. Warner, B.A.
Deputy Assistant Commissioner: W. W. Usher.
Resident Justice of the Peace, Bremersdorp: S. B. Williams.
Deputy Assistant Commissioner (Acting), stationed at the Peak: Sub-Inspector T. W. Vine, D.C.M.

Ubombo District.

Assistant Commissioner, Ubombo: T. A. F. Steward.

Mankaiana District.

Assistant Commissioner: D. H. Harvey.

Police.

Staff Officer for Police: Major G. D. Roberts.

Medical.

Principal Medical Officer: R. Jamison, F.R.C.S.

Veterinary.

Principal Veterinary Officer: W. A. Elder, O.B.E., F.R.C.V.S.

3. **Local Administration.**—A Proclamation was issued in 1912, constituting the township of Mbabane and empowering the High Commissioner to make general regulations for the government of townships. There is no council or village board. The streets are kept in repair by the Government and no rates are charged. The sanitary organization of Mbabane is under Government supervision and householders pay a nominal amount per month for this service. Mbabane is provided with electric light and an ample supply of water by the private companies which purchased the mineral concessions of the Swaziland Tins Co., Limited, on the liquidation of the latter in 1922.

§ 4. Population and Vital Statistics.

1. **Population.**—The following table gives the population of Swaziland in 1911 and 1921 :—

POPULATION OF SWAZILAND, 1911 AND 1921.

Race.	1911.			1921.		
	Male.	Female.	Total.	Male.	Female.	Total.
European.....	623	460	1,083	1,239	966	2,205
Bantu.....	44,098	54,635	98,733	52,761	57,534	110,295
Asiatic.....	84	59	143	7	—	7
Other Coloured...				254	190	444
TOTAL.....	44,805	55,154	99,959	54,261	58,690	112,951

A small percentage of the natives in southern Swaziland consists of Zulus. There are four European villages in Swaziland—Mbabane with a European population of 260, Bremersdorp with a European population of 120, and two villages, of about 200 erven each, which have been established in the Hlatikulu District, at Hlatikulu and Goedgegun. Other European centres are the Government stations at Mankaiana, Stegi, and Pigg's Peak.

2. **Vital Statistics.**—(i) *Registration of Births, Deaths, and Marriages.*—The registration of births and deaths and the solemnization of European and native marriages are regulated respectively by the following Transvaal Laws, viz., Proclamation No. 27 of 1900, Law No. 3 of 1871, and Law No. 3 of 1897, which are in force in Swaziland, by virtue of the *Swaziland Administration Proclamations* of 1904 and 1907. The general requirements under these laws are the same as in the Transvaal. The registration of native births, deaths, and marriages (other than marriages under European law) is not yet enforced.

(ii) *Births, Deaths, and Marriages Registered.*—The total number of births, deaths, and marriages, European and coloured, registered during a period of years is shown in the following table :—

BIRTHS, DEATHS, AND MARRIAGES REGISTERED IN SWAZILAND.

YEAR.	BIRTHS.	DEATHS.	MARRIAGES.	
			European.	Coloured.
1915.....	42	12	6	45
1916.....	42	18	5	45
1917.....	49	18	7	41
1918.....	34	22	9	15
1919.....	50	25	10	65
1920.....	49	23	12	62
1921.....	43	21	10	66
1922.....	61	15	17	62
1923.....	53	27	13	53
1924.....	55	21	12	79

3. **Health.**—Swaziland varies in altitude from about 4,000 feet on its western border to about 400 feet near the eastern border, and consequently all kinds of climate are represented, from that of the Transvaal *high veld* to almost tropical *low veld*. While the former is one of the healthiest portions of South Africa, in the *low veld* on the eastern side there is a good deal of malaria in the hot season, and some dysentery. Both, however, are easily avoided by taking the precautions ordinarily considered necessary in any sub-tropical country, and quite a number of white men lead healthy lives in the very middle of the *low veld*. The natives, on the whole, are of good physique and suffer little from epidemic diseases. The medical service consists of three doctors and two hospital assistants.

§ 5. Educational Organization and Social Conditions.

1. **Government-aided Education.**—Government schools of an elementary type are established at various centres in the country. There is also a Government school for natives at Zombode, the kraal of the paramount chief. A primary and secondary school has been established at Mbabane by the Venerable Archdeacon C. C. Watts, M.A. This school receives a Government grant and charges no tuition fees. It is attended by boarding and day scholars of both sexes. Several of the pupils have passed the matriculation examination. In the year 1924 there were 71 scholars on the roll. Archdeacon Watts also established a school for coloured children near Mbabane. This receives a Government grant, which is also paid to another school for coloured children, which has been established at the Florence Mission in the Hlatikulu district. In addition to the above, the various missions conduct schools and classes in connection with their mission work for natives. These also receive Government grants. Boarding bursaries at the rate of 4s. per child per week are paid by the Government for all white pupils whose parents are in poor circumstances and who reside three miles or more from school. There are very few white children who are not receiving education.

At present there are 14 schools for white children in the Territory. The average attendance during the year 1924 was 329, as compared with 246 in 1923.

The average attendance at the Polonjeni coloured school was 60 and at the Government school for natives at Zombode 92.

There are 2,532 native pupils at the various mission schools. A number of the more advanced pupils, both boys and girls, are sent out every year to be trained in the Union—at Lovedale, Tiger Kloof, and other Institutes. The paramount chief was educated at Zombode and Lovedale. The cost of tuition and board for these pupils is paid from the *Swazi National Fund*, which was created with the concurrence of the Swazi chiefs, for purposes of direct benefit to the natives. Each native taxpayer is required by law to pay 2s. per annum to the fund, the expenditure from which is under the control of the Government.

2. **Churches and Missionary Activities.**—There are sixteen religious bodies carrying on work in Swaziland, as follows:—

Church of England.	International Holiness Union.
Wesleyan Methodist.	Evangelic Lutheran.
Dutch Reformed Church.	African Methodist Episcopalian.
S.A. Reformed Church.	Independent Methodist.
Gereformeerde Church.	Full Gospel Mission of Norway.
South African General Mission.	Christian Catholic Apostolic Church of Zion.
Roman Catholic.	Scandinavian Alliance Mission.
Church of the Nazarene.	Swedish Mission.

As far as possible, the native missions avoid encroaching on each other's spheres of work. Religious instruction is given by the different bodies at about 186 different centres, where the average attendance during 1924 was 9,743, as compared with 8,273 in 1923. The Church of England and the Roman Catholic Church also have churches at Mbabane for Europeans and a church has been built at Bremersdorp.

Mission work was begun amongst the natives many years ago by the Reverend Joseph Allison, an enthusiastic Wesleyan pioneer missionary. He started work at Mahamba with the permission of the Swazi authorities. There the Swazi king, Mswazi, visited him, and for the first time saw a white man.

Some years later missionaries of the Church of England erected the first permanent mission station in Swaziland, at the Usutu.

The South African General Mission followed and the Wesleyans reopened their work in the Territory.

When the country was taken over by the Crown, after the South African war, and law and order became more established, the missions had a better opportunity. The Wesleyans developed their work very largely with good schools; the Church of England

also extended from the Usutu to various outstations, while the South African General Mission enlarged its sphere of work. In addition to these, the Scandinavian Alliance Mission, and later on the Roman Catholic Church, established missions in various parts of the Territory.

Apart from the regular schools, the natives are being educated in a variety of ways. They acquire something of the superficial culture of the Europeans from every white man with whom they come in contact. They are, however, notoriously difficult from a missionary point of view. They do not take kindly to Christianity, not because they are irreligious, but because they find the restrictions somewhat irksome. They are eager for all the advantages and privileges religion has to offer them, but they do not like the responsibilities.

3. **Labour.**—There is a fair local demand for native agricultural and mine labourers, and about 600 natives are employed on the tin mining companies working in Swaziland. The country has not, however, advanced sufficiently to absorb all the native labour available, and consequently the Swazis go out freely to work on the Transvaal mines, where the demand for their labour increases every year. There are about 7,000 Swazis in constant employment on the mines. The recruiting of labour is under the control of the Native Recruiting Corporation, which has agents in the various districts. Many of the natives, however, go out to seek work of their own accord.

§ 6. Administration of Justice.

1. **Superior Courts.**—By the *Swaziland Administration Proclamation*, 1907, a Court of Resident Commissioner with all the powers of a Superior Court, was established. The laws of the Transvaal then in force in Swaziland were re-enacted, *mutatis mutandis*, and the Roman-Dutch Common Law was declared to be in force. In 1912 this Proclamation was amended and a Special Court was substituted for the Resident Commissioner's Court, with an advocate of the Provincial Division of the Transvaal as president. The other members of this Court consist of the Resident Commissioner, the Deputy Resident Commissioner, and the Assistant Commissioners of the various districts. The Court holds sessions at least twice a year. All cases which come before it are dealt with by three members, sitting without a jury. This Court has jurisdiction in all civil and criminal cases arising, or which shall have arisen in Swaziland, including the right of reviewing the proceedings of and hearing appeals from any inferior court of justice in Swaziland. When the Court is not in session, the Resident Commissioner or Deputy Resident Commissioner as a member of the Special Court is competent—

(*a*) to review the criminal proceedings of the Courts of Assistant Commissioner when the sentence exceeds three months' imprisonment, or a fine of £25, or any sentence of whipping, and to hear appeals in all civil and criminal cases against any judgment, sentence, or final order of Courts of Assistant Commissioner;

(*b*) to exercise the civil jurisdiction of the Special Court in all motions and applications and in all actions for provisional sentence, and in all cases in which all parties apply to have the case tried before the Resident Commissioner. In any case, other than a review of criminal proceedings, there is a right of appeal to the full Court.

Death sentences can only be carried out upon the special warrant of the High Commissioner. There is a right of appeal to the Privy Council against any final judgment of the Special Court, where the matter in dispute is of the value of £500 or upwards.

2. **Lower Courts.**—Under the *Swaziland Administration Proclamation*, 1907, the High Commissioner appointed Courts of Assistant Commissioner with jurisdiction in all civil proceedings in which neither party is a white person, and in criminal proceedings in which the accused is not a white person. These Courts have no jurisdiction to try summarily any persons charged with treason, murder, attempt to murder, culpable homicide, rape, attempt to commit rape, or sedition; and in these cases and in other serious cases, preparatory examinations are taken under the *Criminal Procedure Code*, 1903, of the Transvaal, which is in force in Swaziland. The jurisdiction of Courts of Assistant Commssioner as regards white persons, in both civil and criminal matters, is the same as was conferred on courts of magistrates in the Transvaal at that time.

There is one Court of Resident Justice of the Peace, established at Bremersdorp.

3. **Native Courts.**—Under the above-mentioned Proclamation, the paramount chief and other native chiefs of Swaziland are authorized to continue to exercise jurisdiction according to native law and custom in all civil disputes in which natives only are concerned. An appeal lies from the decision of any such chief to the Resident Commissioner, whose decision is final.

4. **Police.**—A Police Force, known as the Swaziland Police, has been established under the command of a Staff Officer The present strength of the Force is :—European : 2 officers, 1 warrant officer, 19 non-commissioned officers and men ; Native : 1 native officer, and 136 non-commissioned officers and men.

5. **Criminal Statistics.**—During the year 1924 the number of cases reported to the police was 2,889. Of this number 79 were not brought before the Courts for want of evidence. In all, 2,810 persons were brought before the various Courts. Of this number, 268 were discharged, 55 committed for trial in the Superior Courts, and the rest summarily convicted.

The following tables show the number of convictions and acquittals during a series of years :—

SUMMARY CONVICTIONS FOR CRIMINAL OFFENCES IN SWAZILAND, 1919 TO 1924.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
Offences against the person..	131	257	127	192	216	354
Offences against property....	245	189	232	243	246	355
Tax and Pass Laws.....	1,219	1,176	1,568	1,704	1,825	1,822
Other offences.....	444	245	483	414	538	294
Number of persons acquitted..	254	144	280	244	297	268

CONVICTIONS IN THE SUPERIOR COURTS OF SWAZILAND, 1919 TO 1924.

Description.	1919.	1920.	1921.	1922.	1923.	1924.
Homicides.....	74	14	13	23	10	11
Other offences against the person	4	48	4	5	6	7
Offences against property.....	3	12	2	16	9	10
Other offences.....	1	1	—	—	1	1
Number of persons acquitted..	69	26	17	8	9	15

§ 7. Organization for Defence or War.

General.—In addition to the police force constituted as stated previously, in each of the four districts of Swaziland there is a rifle club, every member of which holds a Government rifle and 100 rounds of ammunition. An undertaking is signed by the members : " in case of emergency to respond in person . . . to any call in defence of life or property in Swaziland, or the preservation of order therein when called upon by the Resident Commissioner, or his lawful deputy." There are about 350 members belonging to these rifle clubs and most of them could be mobilized as a mounted force.

§ 8. Land Settlement.

1. **Present Position.**—The grant of land, mineral, grazing, and other concessions has been dealt with in § 1 of this chapter. The present owners of land derive their titles from the original concessions granted by the Swazi kings, and provision exists whereby these titles, if granted in respect of periods of ninety-nine years or over, may be converted into freehold grants. These were inquired into by the Chief Court of Swaziland in 1890, and most of the concessions were confirmed. These concessions were duly registered in the books of the Swazi nation, by their agent and adviser, the late Mr. T. Shepstone, C.M.G., and registration has been continued in the Swaziland Deeds Office, which is under the charge of the Registrar of Deeds for the Transvaal.

Land survey, tenure, and occupation and registration of land are based on the same principles as those in the Transvaal. The Surveyor-General of the Transvaal acts in a similar capacity for Swaziland.

The following tables give particulars of deeds registrations in Swaziland during a period of years :—

DEEDS REGISTERED IN SWAZILAND, 1921 TO 1924.

Description.	1921.	1922.	1923.	1924.
(a) NUMBER.				
Deeds of Transfer	39	63	55	73
Deeds of Grant	28	54	52	52
Bonds passed	53	73	47	59
Bonds cancelled and part payments	19	20	28	32
Cessions of Bond and Releases	9	4	11	15
Cessions of Concession Title	43	44	74	49
Antenuptial Contracts	6	4	2	12
Leases	—	1	1	4
Powers of Attorney	2	3	1	8
Substitutions, section 22, Proclamation No. 100 of 1922	—	—	—	2
(b) VALUE.				
	£	£	£	£
Deeds of Transfer	26,754	34,583	16,317	33,098
Deeds of Grant	1,277	3,563	5,350	4,540
Bonds passed	43,988	44,357	92,973*	55,529
Bonds cancelled and part payments	20,647	18,172	19,206	29,613
Cessions of Bonds and Releases	7,307	1,725	2,774	12,119
Cessions of Concession Title	45,845	31,236	19,577	54,885
Substitutions, section 22, Proclamation No. 100 of 1922	—	—	—	2,600

* Includes a collateral notarial bond of £20,000.

The area of Crown land (both unencumbered and encumbered) which has so far been alienated amounts to 438,400 morgen; while there are 60,000 morgen (unencumbered) and 27,500 morgen (encumbered) of Crown land not yet alienated.

2. **Possibilities for Land Settlement Purposes.**—At the time of the settlement of the concessions, many of the Dutch and other settlers in the country were in poor circumstances, and the Government allotted to many of them, on easy terms, suitable plots of land, varying from 420 to 1,050 acres in extent. The results generally have been excellent. During the years 1922 and 1923, about 110 plots in the *low veld*, each of 500 morgen, were sold on easy terms to returned soldiers domiciled in Swaziland.

§ 9. Agriculture, Game, and Fish.

1. **Live Stock and Pastoral Production.**—(i) *Horses and Mules.*—Owing to the prevalence of horse-sickness, Swaziland is not a horse or mule breeding country, but both classes of animal are used extensively.

(ii) *Asses.*—A small number of asses are bred in the Territory.

(iii) *Cattle.*—It is reported by old residents that in the very early days, before the invasion of rinderpest in 1894, the country teemed with cattle, and a rough estimate of the number is given at 300,000 head. Rinderpest in 1894 and 1897 and East Coast fever in 1902, made great ravages. At the 1911 Census the number of cattle was 57,601.

Since 1911, the campaign against East Coast fever has been most successful and cattle have increased very rapidly. The number in 1924 was approximately 250,000. Dipping is compulsory everywhere, and the Europeans and natives have alike realized its value.

Swaziland, especially the *bushveld*, is one of the finest of cattle-raising centres. In 1913 cattle ranches were established in the *bushveld*, and one of these, the largest, is now running approximately 13,000 head of mixed breeding stock. Pure-bred bulls of the Friesland, Shorthorn, Hereford, Aberdeen-Angus, and Devon breeds have been introduced; but, as yet, it is not possible to state definitely which breed is the best to cross with the local cattle, which are themselves of a fairly good type for the purpose, and give a high annual percentage of calves.

From 1902 to 1916, the Union of South Africa prohibited the export of cattle from Swaziland into the Union. This prohibition still exists, except in respect of cattle for slaughter purposes.

During the year 1924, 4,976 head were exported for slaughter purposes.

NUMBER OF CATTLE, HORSES, MULES, ASSES, AND PIGS, 1904, 1911, AND 1921–24.

Year.	Cattle.	Horses.	Asses.	Mules.	Pigs.
1904 (Census)	37,432	505	517	236	4,343
1911 (Census)	57,601	541	1,538	329	8,994
1921 (Census)	210,291	1,449	4,274	284	1,181*
1922 (estimated)	225,000	1,110	3,050	250	9,000
1923 (estimated)	230,000	1,064	3,021	321	9,500
1924 (estimated)	250,000	1,010	3,274	316	10,000

* Pigs belonging to natives were enumerated in urban areas only.

(iv) *Sheep and Wool.*—Approximately 300,000 sheep come into Swaziland from the Union annually, for the purpose of winter grazing. The general farming of woolled sheep the year round has not been generally tried, but a few flocks kept on the hills have done well. No wool is exported.

(v) *Goats and Mohair.*—The goats in Swaziland are of the common South African goat breed. There are no Angora goats in the country.

The Census returns of native sheep and goats are as follows:—

1904	87,085	1922 (estimated)	160,900
1911	163,593	1923 (estimated)	200,000
1921	118,790	1924 (estimated)	248,000

(vi) *Poultry.*—At the 1904 Census the number of all kinds of poultry was returned at 3,484; while at the 1911 Census the number had increased to 10,179.

2. **Agricultural Production.**—(i) *Cultivation of Cereals.*—The summer rains begin in September and continue until March or April. The principal crop raised in the country is maize, grown in all parts. Great care is being exercised by Europeans in the selection of their seed. The chief breeds grown are: Hickory King, Mercer, Chester County, Iowa Silver Mine, Natal Horsetooth.

Kaffir corn is extensively grown by the natives, and wheat, oats, rye, and barley to a limited extent by European farmers with facilities for irrigation.

The agricultural census of 1921 showed the following production of cereals in Swaziland:—Maize, 29,025 bags; kaffir corn, 1,136 bags; wheat, 110 bags; oats (forage), 58,100 lb.

(ii) *Fruit Cultivation and Sugar Production.*—All classes of fruit grow well. Citrus fruits, apples, pears, peaches, apricots, plums, strawberries grow on the high parts; citrus and all sub-tropical and tropical fruits in the middle and low parts. The Government Horticulturist of the Transvaal has reported very favourably on the prospects of fruit-growing, and he was especially impressed with the suitability of the climate and soil for citrus fruits and mangoes. All fruit at present produced is consumed in the Territory, but many citrus plantations are being started. Pending the construction of a railway, production will be limited for want of a market.

The growing of sugar-cane is only in the experimental stage.

(iii) *Cotton.*—The cotton industry is progressing favourably, and during the year 1924 approximately 8,000 acres were put under cultivation. Experiments with many varieties have been carried out, and Watt's Long Staple, Zululand Hybrid, Improved Bancroft, and Griffin appear to give the best results.

Swaziland is believed to be essentially a cotton-producing country of the future. The rainfall, averaging from 30 to 40 inches, the absence of frosts, excepting along some of the streams, the abundance of sunshine and fertility of the soil, supply the requisites for successful cotton production. The production of cotton in Swaziland in 1924 was only one-third of the crop expected owing to the very heavy rains.

(iv) *Tobacco.*—For the production of bright or yellow leaf, the soil, on the whole, is not suitable, though there are restricted areas which are suitable for the production of this type of leaf. The dark or heavy types of leaf are believed to be best suited to the soil conditions, although cigar tobacco is worth a trial. In the Lebombo flats and on the Lebombo there are considerable areas which will produce good bright tobacco.

In 1920–21 the tobacco production of Swaziland was 285,720 lb.; in 1922, 273,970 lb.; in 1923, 322,350 lb.; and in 1924, 278,500 lb.

3. **Forest Resources.**—The whole of the low veld is heavily bushed, and isolated forests or " bushes " exist in kloofs in the Drakensberg Range. There are no indigenous timbers in sufficient quantities to repay exploitation commercially, except for rough purposes, such as timbering mines. Gums and wattles thrive well in the mountainous parts of the west.

4. **Diseases of Animals.**—The diseases most prevalent are tick-borne diseases, i.e. East Coast fever, ordinary redwater, anaplasmosis, and heartwater. Owing to the dipping facilities in the country, none of these diseases constitutes a deterrent to ranching.

(i) *East Coast Fever.*—Since the dipping operations were commenced in 1911, East Coast fever, which was then prevalent over the whole country, has practically disappeared. The outbreaks and deaths from this disease are shown in the following table :—

	Outbreaks.	Deaths.
1915	43	392
1916	21	312
1917	6	10
1918	2	1
1919	3	61
1920	1	10
1921	4	361
1922	3	466
1923	4	253
1924	4	274

(ii) *Ordinary Redwater, Anaplasmosis, and Heartwater.*—These diseases are also controlled by the regular dipping insisted upon.

(iii) *Blackquarter.*—This appears to be on the decrease. General preventive inoculation is being introduced, and where it has already been carried out, the results are excellent.

(iv) *Horse-sickness.*—The virulency of this disease depends upon the rainy season and the altitude. It was very prevalent during 1924.

(v) *Anthrax.*—One outbreak occurred. Inoculation is being carried out.

5. **Government Agricultural Farm.**—An agricultural and experimental farm, where it will be possible to train the natives in improved methods of cultivation, and the production of pure breeds of the best and most suitable seed maize, cotton, tobacco, etc., has been established.

A bacteriological laboratory has been erected. This will enable the local conditions of human and stock diseases to be more easily examined than is possible at present.

6. **Game.**—The following antelope are represented in Swaziland, viz. :—

Kudu.	Impala.	Duiker.
Inyala.	Reedbuck.	Red duiker.
Roan antelope.	Bushbuck.	Blue duiker or piti.
Blue wildebees.	Mountain reedbuck.	Klipspringer.
Waterbuck.	Vaal rhebuck.	Steenbuck.
Sassaby.	Oribi.	Sharpe's steenbuck.

From time to time a few elephant, rhinoceros, hippo, and zebra come into Swaziland from adjoining territories.

Game birds are well represented and comprise a large number of species of *Francolin* partridges and pheasants and guinea-fowl.

7. **Fish.**—There are several varieties of freshwater fish in the rivers of Swaziland, and tiger fish are found in the Usutu, Black Mbuluzi, and Lomati Rivers. Trout ova are being introduced from the hatcheries in the Cape. Sir Robert Coryndon introduced some trout fry in 1908, which were put in the Black Mbuluzi River in October of that year. Further stocking is taking place with good results.

§ 10. Mining and Industrial Activities.

1. **General.**—Mining in Swaziland is carried out under the authority of concessions granted by the late Swazi king Mbandini. These concessions are subject to the payment of certain royalties and a profits tax.

There are at present four companies engaged in mining in the Territory. They are mining for *alluvial tin* in the vicinity of Mbabane, where it is found in payable quantities. *Gold mining* was carried on for some years at the Pigg's Peak and other mines, but owing to the increased cost of this class of mining little work is being done. The Crown owns a few mineral areas, and legal provision has been made for the exploitation of these by

the public in the event of payable minerals being discovered. Considerable quantities of gold have been recovered from the Forbes Reef and Pigg's Peak Mines on the west; and there appears to be no reason why further exploitation of this known mineralized area should not take place at an early date in the future. Large deposits of *coal* exist in the *low veld;* but beyond prospecting operations nothing has been done to exploit these.

2. **Mineral Production.**—The following table shows the output of tin and gold:—

MINERAL PRODUCTION OF SWAZILAND, 1910–11 TO 1924.

Year.	Cassiterite Tin.		Fine Gold.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Oz.	£
1910–11 (31st March)...	476	42,250	13,543	57,530
1911–12 („)...	313	32,397	14,781	62,783
1912–13 („)...	385	37,946	13,011	55,266
1913–14 („)...	492	51,220	11,324	48,104
1914–15 („)...	496	43,256	9,310	39,552
1915–16 („)...	584	56,067	6,497	29,595
1916–17 („)...	502	50,632	4,633	19,682
1917–18 („)...	510	60,221	—	—
1918–19 („)...	482	77,020	—	—
1919–20 („)...	449	66,676	—	—
1920 (calendar).....	410	59,254	276	1,380
1921 („).....	391	29,767	218	1,090
1922 („).....	200	16,420	428	1,926
1923 („).....	151	29,250	93	417
1924 („).....	241	59,082	376	1,693

§ 11. Trade.

1. **Regulation of Customs.**—By an agreement with the Government of the Union of South Africa, dated 30th June, 1910, Swaziland is dealt with, for Customs purposes, as part of the Union. Payments due to Swaziland are assessed on the proportion which the average of the collections for the three years ended 31st March, 1911, bears to the total Customs collection of the Union in each year. No statistics of imports and exports are now kept. The imports consist principally of maize, flour, groceries, wearing apparel, hardware, spirits, tobacco, and kaffir truck, while the principal export is cassiterite tin.

The revenue received by Swaziland from these sources during the last six years is shown hereunder:—

1918–19.....	£10,497
1919–20.....	10,372
1920–21 (31st March, 1921).....	14,343
1921–22 (31st March, 1922).....	11,094
1922–23 (31st March, 1923).....	11,299
1923–24 (31st March, 1924).....	13,500

2. **Trade and Cost of Living.**—There has been little variation in the imports owing to the small European population, and to the elementary requirements of the natives. The volume of trade is small.

The cost of living has increased and prices generally are high, largely owing to the cost of transport of goods from distant railheads.

The following were the average prices of foodstuffs obtaining throughout the year 1924:—

	£	s.	d.
Flour.....per bag 196 lb.	4	10	0
Maize.....per bag 200 lb.	1	10	0
Kaffir corn.....per bag 200 lb.	2	0	0
Potatoes.....per bag 150 lb.	1	10	0
Butter.....per lb.	0	3	6
Milk.....per quart	0	0	6
Rice.....per lb.	0	0	8
Sugar.....per lb.	0	0	5
Bread.....per lb.	0	0	9

	£	s.	d.
Beef.....per lb.	0	0	9
Mutton.....per lb.	0	0	11
Cheese.....per lb.	0	2	6
Eggs.....per doz.	0	2	6
Cattle.....per head	5	0	0
Horses.....per head	15	0	0
Sheep.....per head	1	0	0
Goats.....per head	0	10	0

§ 12. Roads and Principal Routes of Communication.

There are no railways in the Territory, and the lack of them has hindered the development of the country. Farmers are unable to find a market for their produce except amongst the Swazis, whose needs, outside the maize supply, are small.

The main roads in the Territory are kept in as good repair as possible, but a good deal remains to be done in improving and extending means of communication generally.

There are good roads to Mbabane from Ermelo, Breyten, or Carolina, and there is a fairly good road from Mbabane to Delagoa Bay. It is possible to motor through Swaziland from the Transvaal to Delagoa Bay, and, with the improvements now taking place to the through road, both in the Transvaal and in Swaziland, this route will no doubt be largely made use of in the winter months. The main port of entry for the southern portion of Swaziland is from Piet Retief, whence roads extend to Mankaiana, Hlatikulu, and elsewhere in the southern districts.

§ 13. Posts, Telegraphs, Telephones, and Savings Banks.

1. **General.**—By Proclamation No. 5 of 1907, the High Commissioner is empowered from time to time to enter into agreements with the Government of the Transvaal, for the carrying out by the said Government of postal and telegraph services and for the carrying on of post office savings banks. These services are now, by agreement, under the control of the Postmaster-General of the Union, but are paid for from Swaziland funds.

2. **Post Offices.**—At the end of the financial year 1924 there were seventeen post offices. and the following is a summary showing the numbers of offices in the different classes :—

Post offices	17
Money order and savings bank offices	4
Telegraph and telephone offices	7

3. **Mail Services.**—The following is a list of the mail services in operation at 31st March, 1924 :—

Route.		Times Weekly.	Conveyance.	Time (Hours).	Cost per Annum.
					£
Bremersdorp	Stegi	1	Pack Donkeys.	30	36
Piet Retief	Hlatikulu	2	Motor.	5	245
Dwaleni	Berbice	2	Foot.	4	—
Hlatikulu	Mooihoek	2	,,	4	18
Hluti	Mhlotsheni	2	,,	9	—
Mankalana	Piet Retief	2	,,	12	75
Bremersdorp	Carolina	2	Motor.	9½	640*
Mbabane	Forbes Reef	2	Foot.	4	24
Piggs Peak	Barberton	3	,,	14	168
Sandhlan	Amsterdam	1	,,	6	—
Stegi	Portuguese Border	3	,,	6	72
Bremersdorp	White Mbulazi	2	,,	6	48
Berbice	Mhlotsheni	2	,,	4	15
Malkerns	Ezulweni	2	,,	4	24

* An additional amount of £416 is contributed by the Union Post Office.

4. **Revenue Collections and Expenditure.**—The revenue collected during 1924–25 amounted to £3,469, as against £2,984 in 1923–24. The expenditure was £3,301.

5. **Postal Orders.**—The number of postal orders sold during 1924–25 was 11,258, valued at £5,076, with a total poundage of £49. 2,692 orders were paid out, to the value of £1,491.

6. **Money Orders.**—The number of orders issued in 1924–25 was 585, to the value of £3,160, and the commission collected amounted to £28. The number paid out was 466, valued at £3,320.

7. **Savings Bank.**—The number of depositors in 1924–25 was 248, and the amount standing to their credit at the end of the year was £1,553. Withdrawals totalled £1,210 The rate of interest is 3 per cent. on ordinary account and 3½ per cent. on certificate accounts.

8. **Telegrams.**—Telegraph receipts amounted in 1924–25 to £828, against £591 in 1923–24. The number of telegrams forwarded from the Swaziland offices was 12,066, of which 9,607 were " paid " messages, 80 cablegrams, and the rest were Government telegrams ; 9,746 messages were received during the year.

9. **Telephones.**—The amount representing call office receipts was £66.

10. At Mbabane, the postmaster and assistant, who form the staff, are Union Government officials, while elsewhere the post office work is done by local business people.

§ 14. Public and Private Finance.

1. **Public Finance.**—The following statements show the revenue, expenditure, and public debt of Swaziland :—

(i) REVENUE.

Revenue	Financial Year.					
	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Ordinary	67.573	67,845	72,555	75,497	77,879	80,467
Extraordinary	5,769	24,313	16,818	11,606	11,864	9,243
TOTAL.....£	73,342	92,158	89,373	87,103	89,743	89,710

(ii) DETAILS OF REVENUE.

Head.	Financial Year.					
	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
Ordinary.	£	£	£	£	£	£
Licences	2,817	2,524	2,531	3,034	3,148	3,177
Native tax	36,580	35,116	35,214	39,607	41,463	40,019
Dog tax	3,210	2,935	3,162	3,594	3,659	3,773
Native pass stamps	530	506	426	546	654	621
Fines, court fees, etc.	2,596	1,190	1,379	1,332	1,762	1,588
Revenue stamps	1,005	1,223	1,202	1,237	1,325	1,299
Transfer duty	876	2,828	2,748	1,116	1,099	1,814
European Poll tax	—	—	—	1,186	1,174	1,531
Customs	10,497	11,661	15,782	10,124	11,298	13,500
Posts and telegraphs	1,705	1,832	2,249	2,549	2,415	3,176
Concession rents	2,034	2,628	2,794	6,108	3,820	3,356
Base metal royalty	2,045	1,107	1,380	869	422	710
Miscellaneous	1,529	1,973	1,564	1,848	2,424	1,739
Income tax	—	—	—	449	1,213	2,402
European cattle-dipping charges	1,585	1,799	2,075	1,898	2,003	1,762
Wheel tax	564	523	49	—	—	—
TOTAL.....£	67,573	67,845	72,555	75,497	77,879	80,467
Extraordinary.						
Crown lands, leases, sales	3,244	13,459	13,606	8,406	10,422	8,913
Survey costs	2,418	3,182	1,914	3,185	1,436	297
Expropriation costs	107	175	58	15	6	33
Excess Profits tax	—	7,497	1,240	—	—	—
TOTAL.....£	5,769	24,313	16,818	11,606	11,864	9,243
GRAND TOTAL.....£	73,342	92,158	89,373	87,103	89,743	89,710

(iii) EXPENDITURE.

Expenditure.	Financial Year.					
	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
	£	£	£	£	£	£
Ordinary	74,589	75,950	98,001	89,994	84,757	79,639
Extraordinary	7,416	11,045	14,047	4,799	5,053	7,958
TOTAL.....£	82,005	86,995	112,048	94,793	89,810	87,597

(iv) DETAILS OF EXPENDITURE.

Head.	Financial Year.					
	1918–19.	1919–20.	1920–21.	1921–22.	1922–23.	1923–24.
Ordinary.	£	£	£	£	£	£
Resident Commissioner	—	—	—	—	8,320	7,952
District Administration	—	—	—	—	8,240	8,396
Establishments	13,890	15,146	18,778	16,863	†	†
Police	17,032	17,173	20,145	20,241	17,893	16,847
Transport	2,082	1,965	2,067	1,218	—	—
Posts and telegraphs	2,932	3,138	3,525	4,246	3,377	3,384
Administration of justice	4,478	5,078	6,934	5,759	5,374	5,824
Public Works Department	—	—	1,459	1,281	1,477	1,251
Public Works—" Recurrent "	5,721	5,084	7,131	3,189	4,855	1,798
Medical	3,475	4,733	5,608	5,599	4,906	5,261
Education	3,333	3,865	6,056	6,195	5,954	6,096
Veterinary	1,282	6,935	11,079	10,540	10,784	11,443
Allowances, etc.—Native chiefs	1,580	1,673	2,022	2,004	1,721	1,904
Pensions	1,078	1,299	1,726	1,615	1,419	2,348
Interest	3,337	3,338	3,388	3,876	3,945	2,934
Miscellaneous	1,472	2,658	4,495	3,897	3,058	2,369
Sinking fund	2,054	2,054	2,054	2,054	2,054	452
Deeds Registry—Survey services	1,849	1,811	1,584	1,417	1,380	1,380
East Coast fever eradication	8,994	*	*	*	*	*
TOTAL.....£	74,589	75,950	98,001	89,994	84,757	79,639
Extraordinary.						
Concessions and partition expenses	27	—	—	—	—	—
East Coast fever eradication	754	1,011	653	337	1,093	378
Public works extraordinary	3,259	10,034	13,188	3,580	2,927	6,734
Various	3,376	—	206	882	1,033	846
TOTAL.....£	7,416	11,045	14,047	4,799	5,053	7,958
GRAND TOTAL.....£	82,005	86,995	112,048	94,793	89,810	87,597

* Expenditure on East Coast fever prevention accounted for under Veterinary.
† Now accounted for under Votes " Resident Commissioner " and " District Administration."

(v) PUBLIC DEBT.

Swaziland Consolidated Loan..... £35,000
Interest 4 per cent. per annum; repayable in nineteen years from 1st April, 1924; Proclamation No. 6 of 1924.
Swazi Nation Trust Fund..... £20,000
Interest 4 per cent. per annum; Proclamation No. 9 of 1906.

2. **Banking Facilities.**—The National Bank of South Africa, Limited, has branches at Mbabane and Hlatikulu.

The head office of the National Bank of South Africa, Limited, is at Pretoria. The bank-note issues, etc., are carried out under Union laws.

APPENDIX.

CHAPTER XXIII.

§ 5. Assurance.

2. **Statistics of Insurance, 1924.**—The following details have been extracted from the summaries of returns deposited with the Treasury by the Insurance Companies during the year ended 31st December, 1925 (U.G. No. 34, 1926). Practically all the returns refer to the year ended 31st December, 1924. The total assets in the Union of all insurance companies operating in the Union were £30,149,887.

During the year £3,662,710 were received in life insurance premiums, £965,258 were paid out on claims on death, £669,899 on maturity, £672,275 on surrenders, including bonuses, and in reduction of premiums, and £386,138 for commission.

(1) STATEMENT OF LIFE, INDUSTRIAL, AND ANNUITY BUSINESS IN THE UNION IN 1924. THE SUMS INSURED ARE EXCLUSIVE OF BONUS ADDITIONS AND ALL ITEMS ARE NET (AFTER DEDUCTION OF REINSURANCE).

	Number.	Sum Insured.	Single Premiums.	Annual Premiums.
		£	£	£
Life Insurance—				
New policies issued	31,437	14,590,648	16,030	550,636
Policies discontinued—				
By death or maturity	3,214	1,341,584	—	58,164
Other causes	20,113	8,938,507	—	342,080
Policies existing at end of year	238,820	104,453,195	—	—
Industrial Insurance—				
New policies issued	86,546	2,257,769	—	131,070
Policies discontinued—				
By death or maturity	3,855	73,453	—	5,711
Other causes	88,255	2,248,119	—	135,755
Policies existing at end of year	203,637	4,952,047	—	—
Annuity Business—				
New policies issued	30	2,492*	19,172	—
Policies discontinued	19	1,701*	—	153
Policies existing at end of year	446	27,635*	—	—

* Amount per annum.

(2) STATEMENT OF INSURANCE OTHER THAN LIFE, INDUSTRIAL, AND ANNUITY BUSINESS IN THE UNION, 1924.

	Premiums.	Claims.	Commission.	Expenses of Management.
	£	£	£	£
Fire	605,896	149,829	97,033	*
Marine	76,286	31,003	*	*
Employers' liability	288,978	167,408	26,502	49,279
Motor-car	264,101	118,762	47,272	60,987
Live stock	657	Cr. 272	142	145
Accident	102,256	57,005	17,748	29,736
Burglary	16,081	5,487	3,125	3,833
Guarantee	36,152	11,852	6,481	9,470
Plate glass	25,387	10,980	4,445	6,342
Other classes	24,237	11,859	4,639	5,829

* Not available.

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